THE RARE VASCULAR PLANTS OF THE ISLAND OF NEWFOUNDLAND
LES PLANTES VASCULAIRES RARES DE L'ÎLE DE TERRE-NEUVE

André Bouchard, Stuart Hay, Luc Brouillet, Martin Jean and Isabelle Saucier

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Les plantes vasculaires rares de l'Ile de Terre-Neuve

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1991

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Abstract / Résumé

The Island of Newfoundland has 271 rare vascular plants. For each of these, the following information is provided in the form of an annotated list: total range, Newfoundland distribution , habitat, ecoregions where it is found, national status and status in other provinces or territories. Literature references, maps and herbaria consulted are also given. Dot maps, based on herbarium specimens, are included illustrating the Newfoundland distribution of each taxon. Many of the plants on the list are disjunct or endemic species, and 26 are listed as rare in Canada. An analysis of the distribution of the rare plants in Newfoundland reveals that the west coast, particularly the Strait of Belle Isle and Corner Brook regions, contains the highest concentrations of rare species, emphasizing the uniqueness and biological importance of this area.

L'île de Terre-Neuve possède 271 plantes vasculaires rares. Pour chacune de celles-ci, ce document donne les renseignements suivants sous forme de liste annotée: la répartition mondiale, la répartition à Terre-Neuve, l'habitat, les écorégions où elles se trouvent, ainsi que le statut de rareté au Canada et dans les autres provinces et territoires. Des références à la litérature, des cartes de répartition et les herbiers consultés sont également donnés. Les cartes de répartition à Terre-Neuve fondées sur des spécimens d'herbier, sont incluses. Plusieurs des espèces sur la liste sont des espèces endémiques ou disjointes, et 26 figurent sur la liste des plantes rares du Canada. Un survol de la répartition des plantes rares montre que la côte ouest, surtout les régions Strait of Belle Isle et Corner Brook, possède des concentrations importantes de plantes rares, mettant en relief l'unicité et l'importance biologique de ce territoire.

Introduction

Preservation of the natural diversity of plant and animal life is of increasing concern to Canadians. In recent years, we have witnessed the establishment of parks and ecological reserves, as well as the passage of laws for the protection of rare and threatened species, reflecting this new awareness. There are, however, a large number of sites in Newfoundland that, although rich in rare plants, have little or no protection. This study identifies the rare vascular plants of the Island of Newfoundland and regions with sites requiring protection.

Since 1975, the Canadian Museum of Nature has been involved in compiling lists of rare plants for each of the provinces and territories of Canada within the framework of the Botany Division's Rare and Endangered Plants Project. In 1985, George W. Argus, head of this project, suggested that a working group be formed at the Jardin botanique de la Ville de Montréal and the Institut de recherche en biologie végétale de Montréal to prepare a list of the rare vascular plants of the Island of Newfoundland.

The information on which we have based the Newfoundland list is as complete and up-to-date as possible. As botanists continue to explore the island, we hope that they will communicate new findings to us.

Methodology

The first stage consisted of developing as systematic a method as possible of collecting and analyzing data to ensure consistency in the selection process. We began by compiling a complete working list of the vascular plants of the Island of Newfoundland based on the *List of the Vascular Plants of the Province of Newfoundland* (Rouleau 1978). We included additions (Hay *et al.* 1990) and changes to the flora since that publication resulting from recent field studies, a search for literature records, and examination of relevant herbarium collections.

We briefly examined all the species on the complete list in order to eliminate common plants based on the unplublished maps drawn by Professor E. Rouleau, and on personal knowledge acquired during field explorations from 1972 to 1990. Wherever there was the slightest doubt concerning the rarity of a taxon, it was retained for further detailed analysis. This stage was followed by specimen examination at the Herbier Marie-Victorin (MT), which contains one of the largest collections of specimens for Newfoundland, together with the reviewing of relevant literature on distribution or taxonomy. For most species, we also consulted other herbaria (CAN, CDFN, DAO, GH, NFLD, acronyms according to Holmgren *et al.* 1981), and specialists with expertise on difficult groups. Following this research, we were able to eliminate those taxa that proved to be too widespread, or those that could not be included because of their taxonomic status: for example, taxa considered to be forms, hybrids, or taxa rejected by recent scientific studies. Some contentious taxa (e.g. *Antennaria* species) were not excluded, although they appear to be only minor variants, because even if further taxonomic study subsumes them, they would still blong to a rare taxon.

Details concerning status decisions and the principal arguments were entered in the data file, together with a list of collections, correspondance with specialists, published distribution maps, and any relevant citations in the literature. Certain candidate species or varieties were considered three or four times before being assigned rare status.

Definitions

Before examining the criteria used in determining rare status, it may be useful to define the following five classes reflecting various degrees of danger, or risk of extirpation. These terms are recommended by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (Argus *et al.* 1982-87), and generally conform with those

used by the International Union for the Conservation of Nature and Natural Resources (IUCN) (Aymonin 1980).

- **Rare**: a taxon that because of its biological characteristics, or because it occurs at the edge of its range, or, for some other reason, exists in low numbers or in very restricted areas in the region under consideration.

- **Threatened**: a taxon that is likely to become endangered, in the region under consideration, unless the factors affecting its vulnerability do not become reversed.

- **Endangered**: a taxon whose existence, in the region under consideration, is threatened with immediate elimination through all or a significant portion of the region owing to the actions of man.

- **Extirpated**: a taxon that no longer exists in the wild in the region under consideration, but that exists elsewhere.

- **Extinct**: a taxon that was formerly indigenous to the region under consideration, but that no longer exists anywhere.

Our present data base only identifies Newfoundland plants that are rare, without determining those that may be threatened, endangered, or already extirpated. It must be borne in mind that a plant can be rare without being threatened; this is true of *Elatine minima* (fig. 1) and *Thelypteris palustris* var. *pubescens*, which are scattered over a wide range, and *Oxyria digyna* or *Viola palustris* (fig. 2) that colonize relatively inaccessible habitats.

Figure 1: Distribution of *Elatine minima* in Newfoundland

Figure 2: Distribution of *Viola palustris* in Newfoundland

Criteria

As Aymonin (1980) points out, definitions or evaluations may be adopted at different geographic levels: local, regional, national or world-wide. Depending on the location and the geographic scale selected, the concept of what constitutes a rare plant is applied in different ways. For example, a plant which is rare in Newfoundland (e.g. *Maianthemum racemosum* ssp. *racemosum*) may well be common on the larger eastern North American scale (fig.3), while a plant that is relatively widespread in northwestern Newfoundland (e.g. *Cypripedium calceolus* var. *planipetalum*) may be rare at the provincial scale (fig. 4).

The criteria used in determining rare status are related to the number of populations known to occur in Newfoundland and to their spatial distribution, according to the definition of rare status given above. Rare status is deduced from the number and dispersion of

Figure 4: Distribution of *Cypripedium calceolus* var. *planipetalum* in Newfoundland

Figure 3: Distribution of *Maianthemum racemosum* ssp. *racemosum* in North America

localities where the plant is known to occur. In studying populations of potentially rare plants, the major source of information, then, comes from herbaria and published distribution maps. Moreover, we verified these distributions in the field in 1986, 1987, 1988, 1989, and 1990. However, because some regions of Newfoundland, such as the Long Range Mountains and the south coast are difficult to access, one would expect some distributions to change with further exploration.

Criteria of population numbers and geographical distribution may be subdivided into two categories: taxa whose populations are limited to a single region, and taxa with a small number of populations scattered over a wide area.

Taxa with populations of limited distribution

In Newfoundland, taxa with limited distributions occur primarily on the west coast because of several marked regional features. For instance, because of the strong north-south climatic gradient, the Codroy Valley contains more southerly species, such as *Maianthemum racemosum* ssp. *racemosum* (fig. 5), while the northern end of the Great Northern Peninsula harbours species such as *Astragalus alpinus* var. *alpinus* and *Potentilla pulchella* (fig. 6)

Figure 5: Distribution of *Maianthemum racemosum* ssp. *racemosum* in Newfoundland

Figure 6: Distribution of *Potentilla pulchella* in Newfoundland

that colonize habitats characterized by a sub-arctic climate. Between these two climatic extremes, taxa are also found whose distributions are limited due to microclimatic, edaphic or geohistorical factors. Examples include *Thelypteris quelpaertensis* (fig. 7) on the alpine plateau of the Long Range Mountains, *Polystichum scopulinum* (fig.8) in the Bay of Islands, or *Braya humilis* var. *humilis* on Table Mountain in Port au Port District (fig. 9).

A number of Newfoundland's rare plants are at the limit of their range in eastern North America: the northern edge (e.g. *Sagittaria latifolia*, fig. 10) or the southern edge (e.g. *Crepis nana*, fig. 11). Favourable habitats supporting these species are scarce and limited to restricted areas.

It should be pointed out that the occurrence of populations limited to a small geographical area does not mean that the plant cannot be locally frequent; this is true in the case of the endemic *Minuartia marcescens*, which is found only on the serpentine plateau south of Bonne Bay, but which has, nevertheless, a small total population. Some species of restricted distribution are, on the contrary, too abundant in their habitat to qualify for rare status (e.g. *Antennaria eucosma*, *Salix reticulata*).

Taxa with populations of widespread distribution

This second category includes taxa whose populations occur in low numbers and are scattered sparsely over a wide area, for example, *Nymphoides cordata* and *Solidago sempervirens* (fig. 12). Even though these species are found over a relatively large geographical area, they are rare wherever they occur.

The application of these criteria gives rise to an important question: what is the critical number of populations that determines

Figure 7: Distribution of *Thelypteris quelpaertensis* in Newfoundland

Figure 8: Distribution of *Polystichum scopulinum* in Newfoundland

Figure 9: Distribution of *Braya humilis* var. *humilis* in Newfoundland

whether a plant is considered rare? Based on herbarium surveys and Rouleau's distribution maps, our approach was to consider all the plants with fewer than 20 locations as candidates for rare status. Further assessment depended on the distribution pattern of the plant and the different literature sources which we consulted. On the west coast of Newfoundland, 15 localities were considered to represent a low frequency and limited distribution, because of a long history of botanical exploration and several restricted specialized habitats. On the other hand, ten localities distributed over the entire island were considered to constitute a widespread but sparse distribution because the geographical scale is smaller and the territory less well-explored.

Figure 10: Distribution of *Sagittaria latifolia* in North America

Figure 11: Distribution of *Crepis nana* in North America

The determination of rare status is also dependent on the current state of our knowledge. For example, Rouleau's map, which shows only two localities for *Minuartia groenlandica*, led us at first to consider this species rare. However, our field explorations and the addition of records from our herbarium search substantially altered its distribution (fig. 13). This plant was not given rare status because it is quite widespread and populations are frequent on the granite summits of the south coast. Certain plants, particularly aquatic species, appear to be rare and sparsely scattered over a wide area, as in the case of *Najas flexilis* and *Potamogeton spirillus* (fig. 14). However, because they are easily

Figure 12: Distribution of *Solidago sempervierns* in Newfoundland

Figure 13: Distribution of *Minuartia groenlandica* in Newfoundland

Figure 14: Distribution of *Potamogeton spirillus* in Newfoundland

overlooked and less collected, these plants may eventually be found to be more common and removed from the list of rare species.

Introduced plants (*fide* Rouleau 1978), though they may be of rare occurrence, are not included in the list. A number of candidate plants indigenous to eastern North America, although reported for the island, are not considered to be native in Newfoundland and appear in Appendix I. Conversely, some species (e.g. *Gentianella propinqua* ssp. *propinqua*, *Scirpus atrovirens* and *Sparganium eurycarpum*) qualify for rare status even though they may show occasional adventive behaviour in disturbed areas similar to introduced species.

Format of the List

The plants are listed alphabetically by their scientific names. Each plant on the list may have ten data fields.

Scientific Name

The nomenclature, with some exceptions where there was reason to differ (cf. Synonomy and Sources), follows Kartesz & Kartesz (1980). Vernacular names are not given because many plants do not have them and they are not always used consistently.

Synonymy

Synonyms are given only if they are necessary for consultation of the cited literature or for a better understanding of the taxonomic treatment adopted by the floras covering our area: Boivin (1966-67), Fernald (1950), Rouleau (1978) and Scoggan (1978-79).

Sources

This field lists the references which we have used in determining the rare status of a species or variety and, in some cases, a reference to the nomenclature used. The first part of the reference field consists of the official acronyms of the herbaria containing supporting voucher specimens: National Herbarium, Ottawa (CAN); Canadian Forestry Service Herbarium, St.John's (CDFN); Agriculture Canada Herbarium, Ottawa (DAO); Gray Herbarium, Harvard University (GH); Herbier Marie-Victorin, Université de Montréal (MT); and Agnes Marion Ayre Herbarium, Memorial University, St.John's (NFLD).

This is followed by references to the literature and the correspondance with specialists that influenced our decision to include a given taxon in the list of rare plants. An important source of information was the collection of unpublished distribution maps drawn by Professor Ernest Rouleau and kept at the Herbier Marie-Victorin and the Agnes Marion Ayre Herbarium.

Range

The geographic range of the taxon in North America is given, followed by a brief statement of its global distribution. The primary source for this information is Scoggan (1978-79), but the range was occasionally modified to incorporate more recent information form other sources. The citation at Canadian latitudes is generally given from west to east and from north to south (Alas-Y-Mack-K-F; CB-Alta-Sask-Man, Ont, Que, NB, PEI, NS, SPM, Nfld-Lab). A hyphen indicates a continuous range and a comma indicates a discontinuous distribution. An approximation of the range in the United States is given by indicating states that mark the southern limit. A general statement of the range beyond North America follows: for example, G (Greenland) or Eurasia. If other references were used in establishing the range, these are also indicated. The citation was not necessarily modified to be consistent with the format used by Scoggan.

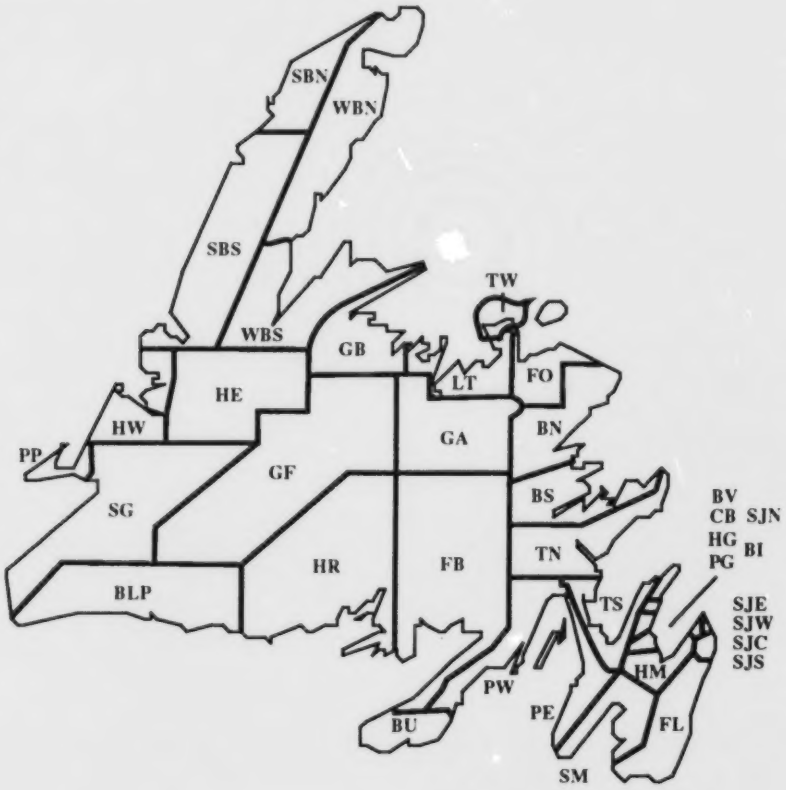

Figure 15: Boundaries of Newfoundland Districts, according to the map of 1978. Abbreviations are as follows (following the order used in the text): **WBN**, White Bay North; **SBN**, St.Barbe North; **SBS**, St.Barbe South; **HW**, Humber West; **HE**, Humber East; **PP**, Port au Port; **SG**, St.George's; **WBS**, White Bay South; **GB**, Green Bay; **GF**, Grand Falls; **TW**, Twillingate; **LT**, Lewisporte; **GA**, Gander; **FO**, Fogo; **BN**, Bonavista North; **BS**, Bonavista South; **TN**, Trinity North; **TS**, Trinity South; **BV**, Bay de Verde; **CB**, Carbonear; **HG**, Harbour Grace; **PG**, Port de Grave; **HM**, Harbour Main; **BI**, Bell Island; **SJN**, St.John's North; **SJE**, St.John's East (Extern); **SJW**, St.John's West; **SJC**, St.John's Center; **SJS**, St.John's South; **FL**, Ferryland; **SM**, St.Mary's; **PE**, Placentia East; **PW**, Placentia West; **BU**, Burin; **FB**, Fortune Bay; **HR**, Hermitage; **BLP**, Burgeo and La Poile.

Newfoundland Range

The distribution of the taxon in Newfoundland is given in terms of the list of administrative districts for which herbarium specimens exist. These distributions are indicated in the following order: west coast region from the Great Northern Peninsula (White Bay North District) to the Codroy Valley (St. George's District); northcentral region from Baie Verte Peninsula (White Bay South District) to the Bonavista Peninsula (Trinity North District); Avalon Penlinsula region from Trinity Bay (Trinity South District) round to Placentia Bay (Placentia East District); south coast region from Burin Peninsula (Placentia West District) to Port aux Basques (Burgeo and La Poile District). Since herbarium specimens are often associated with the older administrative districts, we have used the boundaries shown in figure 15, without taking into account more recent changes. When there are only one or two known localities, these are specified by a general indication of locality (in brackets).

Map References

We have listed the references for the maps consulted that contain information relevant to Newfoundland.

Habitat

The habitat is described on the basis of information from herbarium labels and our own field experience.

Ecoregions

This field indicates the ecoregions of insular Newfoundland, as defined by Damman (1983), where the taxon is known to occur according to our data base. The boundaries and abbreviated codes for these regions are shown in figure 16.

Status

This field indicates whether a taxon is rare at the national level in Canada (Argus & Pryer 1990), that is, rare in all the provinces and territories in which it occurs. Nationally rare species are classified according to the scale proposed by The Nature Conservancy of the United States (1982, with 1988 revisions), which is based on the number of occurrences (N1-critically endangered, to N5-demonstrably secure). This information was taken from Argus & Pryer (1990) in which additional details can be found.

The status of a species or variety in other provinces or territories in Canada is based on the published lists for Alberta (Argus & White 1978, Packer & Bradley 1984), British Columbia (Straley *et al.* 1985), Manitoba (White & Johnson 1980), New Brunswick (Hinds 1983), Nova Scotia (Maher *et al.* 1978), Ontario (Argus & White 1977, Argus *et al.* 1982-87), Quebec (Bouchard *et al.* 1983), Saskatchewan (Maher *et al.* 1979), the Northwest Territories (Cody 1979) and the Yukon Territory (Douglas *et al.* 1981). Status within the United States is not included because of the number of states and the frequent changes in published lists. The Nature Conservancy of the United States should be contacted directly for this information.

Newfoundland Rarity

The following status ranks were selected for Newfoundland taxa, based on the scale used by The Nature Conservancy of the United States (1982, with1988 revisions) and Argus & Pryer (1990):

- **S1**: Critically endangered on the Island of Newfoundland because of its extreme rarity (5 or fewer occurrences or very few surviving individuals or hectares), or because of some factor(s) making the taxon particularly vulnerable to extirpation on the island.

- **S2**: Threatened on the Island of Newfoundland because of its rarity (6 to 20 occurrences, or few surviving individuals or hectares), or because of some factor(s) making the taxon highly vulnerable to extirpation on the island.

- **S3**: Rare or uncommon on the Island of Newfoundland (on the order of 21 to 100 occurrences).

- **SH**: Historically known on the Island of Newfoundland, but its presence is unverified in the past 20 years, and it is suspected to be still present. Naturally, a taxon would become SH without this 20-year delay if the only

Figure 16: Ecoregions of the Island of Newfoundland, according to Damman (1983). Abbreviations are as follows (roman numerals indicate ecoregions, letters subregions): **I.** Western Newfoundland: **A.** Serpentine Range, **B.** Corner Brook, **C.** Port au Port, **D.** St. George's Bay, **E.** Codroy, **F.** Bay d'Espoir; **II.** Central Newfoundland: **A.** Northcentral, **B.** Red Indian Lake, **C.** Portage Pond, **D.** Twillick Steady; **III.** Northshore; **IV.** Northern Peninsula: **A.** Coastal Plain, **B.** Beaver Brook Limestone, **C.** Northern Coastal, **D.** Eastern Long Range; **V.** Avalon Forest; **VI.** Maritime Barrens: **A.** Northeastern Barrens, **B.** Southeastern Barrens, **C.** South Coast Barrens, **D.** Central Barrens; **VII.** Eastern Hyper-oceanic Barrens; **VIII.** Long Range Barrens: **A.** Southern Long Range, **B.** Buchans Plateau-Topsails, **C.** Northern Long Range; **IX.** Strait of Belle Isle.

known occurrences on the island were destroyed or if the taxon had been extensively but unsuccessfully looked for and is still likely present. If such an SH-rated taxon was relocated, it would typically receive an S1 rank. The SH rank is reserved for taxa for which some effort has been made to relocate occurrences, rather than simply for any taxon that has not been verified.

Notes

This heading provides additional information for a better understanding of the status of the taxon involved. For example, when there are only one or two known localities, we indicate the names of the collectors and the collection dates. Merritt L. Fernald and E. Rouleau, in particular, have made numerous explorations resulting in remarkable discoveries. Comments of phytogeographical interest, localities of type collections, or reservations regarding the taxonomic value of the taxon are also given under this heading. Finally, for some species, we draw attention to the fact that they may be undercollected and that further exploration may lead to a reassessment of their rare status.

Appendices

Two appendices follow the main list. Appendix I lists taxa excluded. The reason for this exclusion is indicated by codes that are explained at the beginning of the appendix. Moreover, we included in Appendix I the taxa listed as rare in Newfoundland by Argus & Pryer (1990) and Day (1989), but which did not meet our final selection criteria. Appendix II lists the rare vascular plants of Newfoundland in the taxonomic order of the *Flora of North America* project, which follows Cronquist (1981). Names shown in italics are synonyms.

Maps

Dot maps are included illustrating the Newfoundland distribution of each species on the list. The maps are based on herbarium specimen records stored in our computerized data bank.

Distribution patterns of rare plants in Newfoundland

To examine the regional floristic relationships of the rare vascular plants on the Island of Newfoundland, we carried out a cluster analysis of the ecoregions defined by Damman (1983; fig. 16) based on the presence or absence of rare species (fig. 17). The analysis attempts to group together the geographic units based on the floristic similarities between them. Three subregions (Bay d'Espoir, Twillick Steady, and Portage Pond) have no rare taxa and were not included in the study. Furthermore, four subregions, Northern Coastal, Beaver Brook Limestone, Eastern Long Range and Central Barrens, could not be correctly placed in a preliminary analysis because they contained too small a number of species. These four were also withdrawn from the analysis, which therefore covered 18 ecoregion and subregion units. Once the analysis was completed, the latter four excluded subregions were positioned manually on the dendrogram, where they seemed to fit best. Several types of clustering analysis were attempted, but the dendrogram using the Lance & Williams (1967) method was selected for discussion, since it seemed to best reflect the biogeographical relationships we observed.

The dendrogram first divides the 18 ecological regions into two major groups (fig. 17). The first group (clusters 1, 2 and 3, from Serpentine Range to Northern Long Range), in the upper half of the dendrogram, has 80 rare species restricted to its regions, such as *Anemone multifida*, *Galium kamtschaticum*, *Osmorhiza depauperata*, *Salix ballii* and *Woodsia glabella* (refer to the maps of species). This group comprises western and northern regions on the Great Northern Peninsula, the west coast of the island, the Exploit River system and the dissected North Shore (fig. 16). The second group (clusters 4 and 5, from Red Indian Lake to Avalon Forest), in the bottom half of the dendrogram, has only six unique species, including *Lycopodium appressum* and *L. digitatum*. It comprises mainly southern and eastern regions of the South Coast Barrens and adjacent inland Ranges, the Burin Peninsula, and the Avalon Peninsula (fig. 16).

Western and northern regions

The richness in rare species of this first major group (clusters 1 to 3) is due to the strong climatic gradient along the west coast, ranging from the Codroy subregion in the south to the Strait of Belle Isle ecoregion in the north, coupled with considerable geological variability, where limestone, peridotite and granite bedrocks are found in close proximity. The richest region, Strait of Belle Isle, contains 114 rare species, of which 29 are exclusive, followed by the Corner Brook region with 101 species, 10 being unique. This first major group is divided into three subgroups.

Cluster 1 comprises ecoregions of the west coast and of the Great Northern Peninsula from Port au Port to Strait of Belle Isle (fig. 16 & 17). It is characterized by mostly basiphilous species such as *Carex glacialis*, *Drosera linearis*, *Festuca prolifera*, *Lesquerella arctica* and *Malaxis monophyllos* var. *brachypoda*. These regions are underlain by calcareous bedrock, except for the

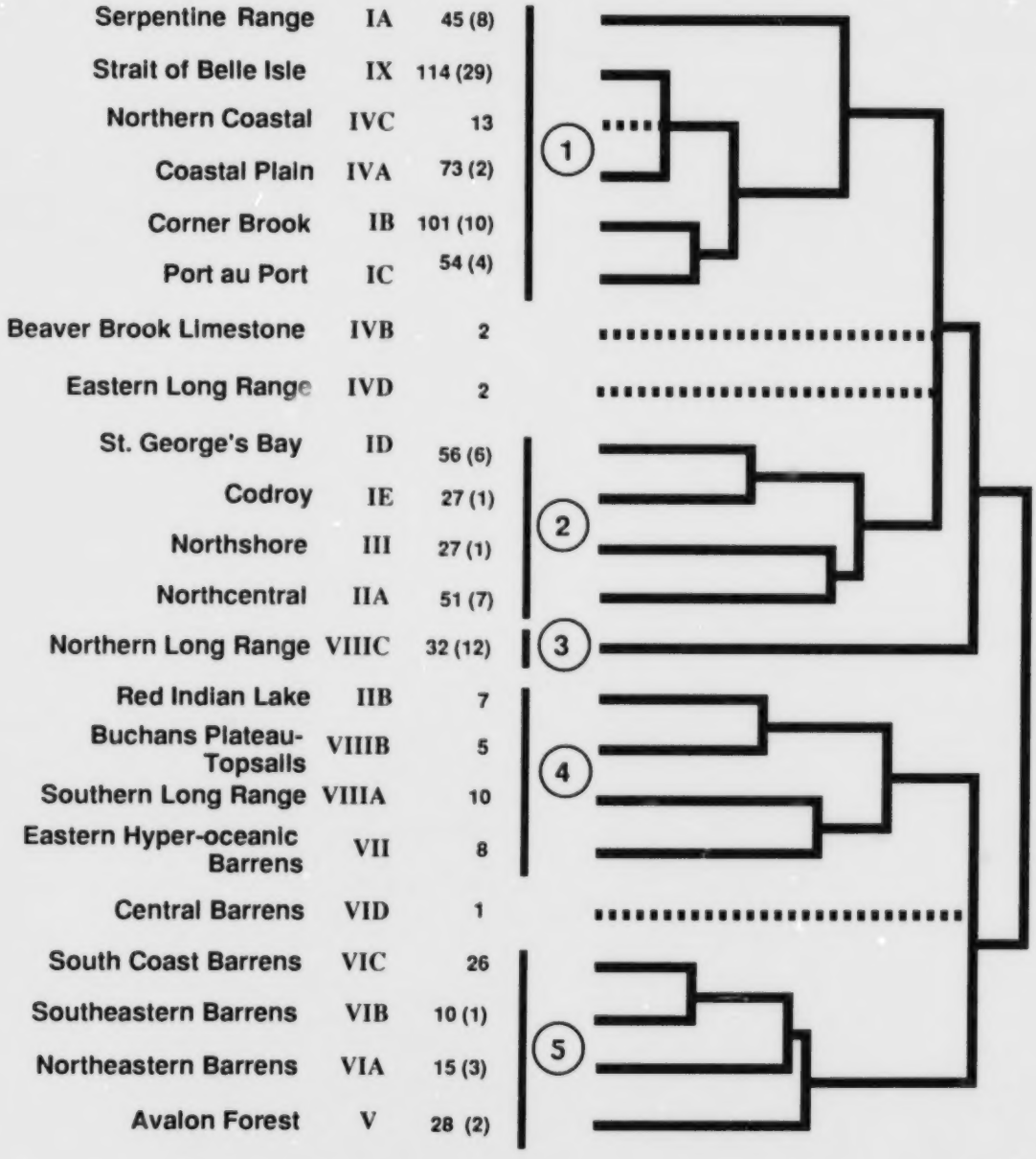

Figure 17: Dendrogram resulting from the clustering analysis of Damman's ecoregions and subregions (1983; Fig. 16) based on the presence of rare vascular plants (Lance & Williams analysis, beta =-0.25, Jaccard coefficient). This analysis clusters geographical units according to their floristic similarity. Three subregions (Bay d'Espoir, I F, Twillick Steady, II B, and Portage Pond, II C) were without rare species and were thus not included. Also, four subregions (Central Barrens, Beaver Brook Limestone, Northern Coastal and Eastern Long Range) were not placed correctly in preliminary analyses. They were removed from the analysis, which was carried out on 18 biogeographical units. Once the analysis completed, the latter regions were placed by hand at the position that appeared most appropriate to us. From left to right on the figure are given: the names of Damman's ecoregions and subregions, the abbreviation as it appears in figure 16 and in the list of rare species, the number of rare species in each region, with that of unique species between parentheses, and the number of the clusters discussed in the text.

Serpentine Range subregion that is set apart by its serpentinized mafic and ultramafic rock. Species of open serpentine habitats such as *Cerastium terrae-novae*, *Draba lactea*, *Minuartia marcescens* and *Polystichum scopulinum* are restricted to this region. In the northwest, two regions with exposed limestone barrens, Strait of Belle Isle and Coastal Plain, share several species, such as *Arnica griscomii* ssp. *griscomii*, *Cardamine pratensis* ssp. *angustifolia*, *Carex bicolor* and *C. microglochin*. The other two regions of cluster 1, Corner Brook and Port au Port, are also characterized by limestone. Species such as *Braya humilis*, *Carex petricosa* var. *misandroides*, *Dryas drummondii*, *Erigeron compositus*, *Hedysarum boreale* ssp. *mackenzii* and *Senecio cymbalaria*, are restricted to one or the other. The exposed, unstable, calcareous or serpentinic substrates of theses regions account for the most conspicuous elements of the flora, those of arctic-alpine or Cordilleran affinities and some endemic species (Bouchard et al. 1986; Damman 1965). The Corner Brook subregion is further distinguished by unique riparian and aquatic elements, such as *Alisma plantago–aquatica* var. *americanum*, *Lysimachia thysiflora* and *Sagittaria latifolia*.

Cluster 2, from St.George's Bay to Northcentral, comprises regions that have in common warmer riverine valleys with alluvial vegetation, areas of dry, sandy soils, and the best-developed estuarine saltmarsh habitats. This group is characterized by *Calla palustris*, *Crataegus chrysocarpa*, *Pinus resinosa*, and *Spartina patens*. St.George's Bay and Codroy, two contiguous regions of southwestern Newfoundland, have more southerly species of the deciduous forest and temperate regions of the continent, such as *Acorus americanus*, *Claytonia caroliniana* var. *caroliniana*, *Dryopteris marginalis*, *Hydrocotyle americana*, *Hypericum ellipticum*, *Impatiens pallida* and *Ranunculus recurvatus*. The valleys of these regions are the warmest enclaves on the island, explaining the presence of these rare species (Damman, 1965, 1976). It should be noted that, in other analyses that were done, these two areas showed affinities with Corner Brook and Port au Port subregions of cluster 1, sharing with them a number of calcicolous and halophytic species. Strong floristic ties exist between all these regions and the two discussed immediately below. The two other regions of cluster 2, Northshore and Northcentral, are the only ones in the top half of the dendrogram (fig. 17) that are not located on the west coast. They are linked to this cluster by shared saltmarsh elements, such as *Limonium carolinianum*, *Solidago sempervirens*, and *Zannichellia palustris*, or by riverbank species, such as *Crataegus chrysocarpa* and *C. macrosperma* var. *acutiloba*. However, the Northshore and the Northcentral regions are distinguished by species at the northeastern limit of their ranges, such as *Carex houghtonii*, *Chimaphila umbellata* var. *cisantlantica*, *Pinus resinosa* and *Polygala paucifolia*. Their restricted distribution pattern shows a correlation with the relatively warm climate and dry, sandy soils of northcentral Newfoundland (Damman 1965, 1976).

Cluster 3, the Northern Long Range subregion, stands alone by its uniqueness. It is characterized by harsh alpine topography with numerous fjords. The siliceous bedrock is acidic, consisting of granite, granite-gneiss and quartzite outcroppings. Many arctic or alpine elements, such as *Athyrium alpestre* ssp. *americanum*, *Gnaphalium supinum*, *Lycopodium alpinum*, *Sibbaldia procumbens*, *Thelypteris quelpaertensis*, and *Vahlodea atropurpurea* var. *atropurpurea*, are found only in this region. Damman (1976) relates the restricted occurrence of these species to critical habitats, such as late-lying snowbeds, found in these mountains.

Southern and eastern regions

The second major grouping of ecoregions (clusters 4 and 5, from Red Indian Lake to Avalon Forest) resulting from the first division of the analysis, lies in the bottom half of the dendrogram (fig. 17). It encompasses the southeastern peninsulas, the Avalon and the Burin, the south coast and hinterland plateau barrens (fig. 16). Factors such as the humid oceanic climate, high fog frequency and exposed siliceous barrens account for floristic differences with the first three clusters on the opposing side of the dendrogram.

Cluster 4, from Red Indian Lake to Eastern Hyper-oceanic Barrens, appears to be somewhat artificial, resulting from the grouping of regions with low numbers of rare species. It comprises three contiguous regions, Red Indian Lake, Buchans Plateau-Topsails, and Southern Long Range, in the southwestern part of the island, and a fourth one, Eastern Hyper-oceanic Barrens, disjunct in the southeast. It has no unique species but it is characterized by rare species with wide distributions (ex.: *Platanthera grandiflora*), most of which are present in cluster 5.

The last subgroup, cluster 5, from South Coast Barrens to Avalon Forest (fig. 16 & 17), comprises regions of the south and southeast of the Island of Newfoundland. It regroups more southern coastal plain elements of the flora. It is characterized by species including *Elatine minima*, *Gratiola aurea*, *Hudsonia ericoides*, *Limosella australis*, *Lycopodium appressum*, *Myrica pensylvanica*, *Nymphoides cordata*, and *Utricularia purpurea*. The distribution of these oceanic species on the island is controlled by their inability to tolerate extreme winter temperatures (Damman 1965). Other species unique to this cluster, with no apparent explanation, include *Hieracium robinsonii*, *Lycopodium digitatum*, *Sparganium fluctuans*, and *Suaeda richii*.

Phytogeographical affinities of the rare species

The rare vascular plants of Newfoundland show distinct patterns of distribution among the island's ecoregions, depending on their particular ecology. It is also possible to discuss these species in terms of their global distribution. Biogeographers recognize within floras various floristic elements, each of which corresponds to sets of species having a similar areas of distributions, and presumably, having been subjected to a common history and similar ecological conditions. Bouchard *et al.*(1978) and Mednis (1981) established the general spectrum of these elements for Newfoundland. For the following analysis, we used the scheme of Bouchard *et al.* (1987, 1990) as applied to the flora of Gros Morne National Park. Such an approach sheds light on the diversity of origins of the rare vascular plants of the Island of Newfoundland.

Among the 271 rare vascular plants of the island, the North American element predominates with 64,6% (175) of the species. This percentage includes 26,6% (72) of elements restricted to the eastern part of the continent, among which are found mostly species such as *Carex pedunculata*, *Cypripedium reginae*, *Cystopteris laurentiana*, *Fraxinus nigra*, and *Maianthemum racemosum* ssp. *racemosum* (fig.3), from the deciduous forest region (46 or 17%), mostly from the Great-Lakes-St.Lawrence region, and from the Atlantic coastal plain region (16 or 6%), like *Cladium mariscoides*, *Limonium carolinianum*, *Lycopodium appressum*, *Solidago sempervirens* and *Spartina alterniflora*. These elements are found mainly in the southwestern and southern parts of the island (see previous section). The other North American species (54 or 20%) are mostly boreal (26 or 9,6%), being found across the continent at Canadian latitudes, in the coniferous forest region. Worth mentioning are *Amerorchis rotundifolia*, *Cynoglossum boreale*, *Oryzopsis canadensis*, *Prenanthes racemosa* and *Salix pedicellaris*. In this group, a biogeographically important element is the Cordilleran element, from the Rocky Mountains, that are disjunct around the Gulf of St.Lawrence and represent 5.5% (15) of the rare species of the island. This element is remarkable because of the numerous theories that have been suggested by various authors to explain this wide disjunction (Fernald 1925a; Marie-Victorin 1938; Drury 1969; Miller &Thompson 1979; Morisset 1979; Rousseau 1974). In this group are found *Astragalus bodinii*, *Dryas drummondii*, *Osmorhiza chilensis*, *Polystichum scopulinum* and *Senecio pauciflorus*. The most plausible explanation is that these species migrated to the eastern part of the continent in a corridor of favourable habitats along the glacier front, at the time of the retreat of the ice (Rousseau 1953). The North American arctic-alpine element includes only 6 species (2.2%): *Carex glacialis*, *Erigeron compositus*, *Oxytropis deflexa*, *Salix arctophila*, *Taraxacum phymatocarpum*, and *Veronica wormskjoldii*. Another important element is comprised of the endemics, species that are restricted to the

Gulf of St.Lawrence region or even to Newfoundland; 34 (12,6%) have been ranked as rare, among which are *Arnica griscomii* ssp.*griscomii*, *Braya fernaldii*, *Cypripedium calceolus* var. *planipetalum*, *Isoetes acadiensis*, *Poa fernaldii* and *Suaeda richii*. However, 9 of these are *Antennaria* species of questionable taxonomic status, and the status of other taxa may change with further research.

To these North American species must be added taxa that are found also on other continents. Thus, two (0.7%) are cosmopolitan, *Potamogeton pectinatus* and *Hymenolobus procumbens*. A few (18 or 6.6%) are amphi-Atlantic, i. e. they are found on both sides of the Atlantic Ocean, a phenomenon particularly apparent in northeastern North America. Worth mentioning are *Alchemilla alpina*, *Bartsia alpina*, *Cassiope hypnoides*, *Platanthera albida* var. *straminea* and *Salix herbacea*. A few amphi-Beringian species (7 or 2,6%), found on both sides of the Bering Sea in Siberia and Alaska, reach Newfoundland in a disjunct manner: *Festuca altaica*, *Galium kamtschaticum*, *Hordeum brachyantherum*, *Poa eminens*, *Thelypteris quelpaertensis* and *Senecio cymbalaria*. Other rare species (10 or 3,7%) are transcontinental in North America and disjunct in eastern Asia, such as *Danthonia intermedia*, *Equisetum hyemale*, *Lesquerella arctica* and *Parnassia kotzebuei*. *Thelypteris palustris* is disjunct in the deciduous forests of east Asia and North America. But the most abundant element in this category is the circumpolar element, with 58 species (21%). It is dominated by arctic-alpine taxa (27 or 10%), such as *Carex microglochin*, *Cystopteris montana*, *Potentilla pulchella*, *Salix arctica* and *Saxifraga rivularis*, and circumboreal taxa (20 or 7,4%), like *Androsace septentrionalis*, *Brasenia schreberi*, *Lysimachia thyrsiflora*, *Najas flexilis* and *Ranunculus gmelinii*. The disjunct arctic-alpine flora, like the Cordilleran element, is found in relict habitats (alpine summits, cold sea-cliffs, unstable serpentine or limestone rocks) around the Gulf, where they have survived since glacial retreat (Fernald 1925a; Marie-Victorin 1938; Drury 1969; Miller & Thompson 1979; Morisset 1979).

The rare flora of Newfoundland is thus dominated, in decreasing order of importance, by species of the deciduous forest, circumpolar or North American, followed by Cordilleran and endemic elements.

The latitudinal distribution of taxa may also be examined. Statistics reveal that the majority of species of rare vascular plants of the island are boreal (90 or 33%) and boreo-temperate (23 or 8,5%), which is to be expected considering the geographic position of the island. But temperate (71 or 26%) and arctic-alpine (69 or 25,5%) taxa follow closely; 16 species are subarctic (6%) and 2 cosmopolitan (0,7%). In the flora of Gros Morne National Park, which can be considered representative of the whole island, boreal elements represent 70% of the flora, the arctic-alpine flora 8% and the temperate 13% (Bouchard *et al*, 1990). This indicates that temperate and arctic-alpine taxa, that reach respectively their northern and southern limits of their ranges in Newfoundland, contribute proportionately more to the rare vascular flora of the island than their representation in the whole flora. This is also the case for Atlantic coastal plain taxa (6% vs 1% in the island) and for endemics (12,6% vs 1%). These facts summarize the factors responsible for rarity in a region like Newfoundland that is insular, limitrophe to the continent, boreal, and recently glaciated: species that are widespread elsewhere become rare at their range limits, some isolated populations produce endemics, and other taxa are disjunct relicts, witnesses of past climates and migrations.

Protection of rare plants in Newfoundland

A number of species in the list of rare vascular plants may be threatened or endangered over all or a significant portion of their ranges in Newfoundland. Some noteworthy examples include *Astragalus bodinii*, *Calypso bulbosa*, *Crepis nana*, *Hedysarum boreale* ssp. *mackenzii* and *Senecio cymbalaria*, for which populations have been recorded from single localities and which are very vulnerable. Obviously, merely listing these plants will not be enough to ensure their preservation.

The Government of Newfoundland and Labrador, as the authority responsible for the natural heritage, must find ways of preserving these rare and endangered species, that may range from legislative measures to public awareness campaigns. Shortly after it joined the Canadian Confederation in 1949, the province passed the «Provincial Parks Act» in 1952. In that Act, the Government recognized the principle of protecting its natural heritage by granting regulatory powers for «The use, care, preservation and improvement of and safety within provincial parks including the rivers, lakes, trees, shrubbery and other things whether animate or inanimate». Almost 30 years later, as was the case in several other provinces, the Government of Newfoundland and Labrador enacted in 1980 the «Wilderness and Ecological Reserves Act». Whereas the former Act targeted primarily recreation, the latter is more conservation-oriented. Both Acts, oriented toward the enhancement of the natural heritage, provide different but complementary tools, ranging from education to the preservation of habitats rich in rare and endangered species. Although the provincial parks system is well-developed and includes some ecologically significant sites, the wilderness and ecological reserve system is still incipient. More than ten reserves have been proposed for the island by the Advisory Council and most have been accorded provisional status by the Government (May 1990). The provincial conservation strategy should benefit from this study in the recognition of priority areas that have important concentrations of rare plants. Finally, the Government of Canada also contributes to the protection of rare plants in national parks such as Gros Morne (UNESCO World Heritage Site) and Terra Nova, or in national historic parks such as Port au Choix and L'Anse aux Meadows (UNESCO World Heritage Site).

This brief survey demonstrates that the Government of Newfoundland and Labrador already has access to a number of legal tools for rare plant protection. However, it must ensure the existence of a government agency to coordinate a program for the protection of rare and endangered species. If such a program is not developed and implemented, the project to list the rare plants of Newfoundland will never achieve one of its primary goals: the preservation of part of its natural heritage.

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In the course of our field work, between 1972 and 1990, we enjoyed the warm welcome of Newfoundlanders.

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Introduction

La préservation de la diversité des organismes vivants devient de plus en plus une préoccupation de l'ensemble de la population.Depuis quelques années, nous assistons à la création de parcs et de réserves écologiques, de même qu'à l'adoption de lois sur la protection des espèces rares et menacées, reflétant cette prise de conscience.Cependant, Terre-Neuve possède un grand nombre de sites riches en plantes rares qui sont peu ou pas protégés.La présente étude permet d'identifier les plantes vasculaires rares de l'île de Terre-Neuve, de même que les régions riches en sites naturels à conserver.

Depuis 1975, le Musée canadien de la Nature suscite et participe à la compilation de listes de plantes rares pour chaque province et territoire du Canada, dans le cadre du Programme des plantes rares et menacées de la Division de la Botanique. En 1978, George W. Argus, responsable de ce projet, suggérait la formation d'un groupe de travail au Jardin botanique de la Ville de Montréal et à l'Institut de recherche en biologie végétale de Montréal pour établir la liste des plantes vasculaires rares du Québec de même que celle de l'île de Terre-Neuve.

La liste repose sur des données aussi complètes et ausssi récentes que possible. À mesure que des botanistes continueront à explorer l'île, nous les encourageons à nous communiquer leurs découvertes.

Méthodologie

La première étape a consisté à mettre sur pied une méthode aussi systématique que possible de récolte et d'analyse des données afin d'assurer uniformité et continuité dans la sélection de candidats. Nous avons donc préparé une compilation des plantes vasculaires de l'île de Terre-Neuve fondée sur la *List of the Vascular Plants of the Province of Newfoundland* (Rouleau 1978). Nous avons aussi inclus des additions (Hay *et al.* 1990) et changements à la flore depuis cette publication émanant d'études récentes sur le terrain, de la litérature scientifique et de l'examen des collections d'herbiers pertinents. Dans un premier temps, nous avons étudié sommairement toutes les espèces, afin d'éliminer les plantes communes, en nous basant sur les cartes non-publiées dressées par E. Rouleau et sur les connaissances acquises durant nos explorations allant de 1972 à 1990. Un taxon était retenu pour une analyse approfondie s'il y avait le moindre doute quant à la possibilité qu'il soit rare. Ensuite, des recherches dans l'Herbier Marie-Victorin (MT), contenant l'une des plus grandes collections de spécimens pour Terre-Neuve, de même que la consultation de travaux scientifiques pertinents pour apporter des précisions sur la répartition ou la taxonomie, furent effectuées. Pour la plupart des espèces, nous avons aussi consulté d'autres herbiers (CAN, CDFN, DAO, GH, NFLD; acronymes selon Holmgren *et al.* 1981) ou des spécialistes ayant l'expertise pertinente pour les groupes difficiles. Suite à ces recherches, nous avons pu éliminer les espèces qui se sont avérées trop répandues, ou celles dont le tatut taxonomique ne nous permettait pas de le retenir: par exemple, des formes, des hybrides ou des taxons non valables selon les études les plus récentes. Nous avons conservé quelques taxons dont le statut taxonomique est controversé (ex. genre *Antennaria*) même s'ils ne semblent être que des variants mineurs. Dans ces cas, il s'agit de plantes qui seraient rares même si des recherches ultérieures les mettaient en synonomie.

Lorsque le statut d'une plante était ainsi déterminé, le jugement et les principaux arguments étaient inscrits au dossier, qui comprennent la liste des récoltes, la correspondance avec les experts, les cartes de répartition publiées, ainsi que les citations pertinentes relevées dans la littérature. Certaine candidats ont dû être considérés à plusieurs reprises avant de recevoir le statut de plante rare.

Figure 1: Répartition du *Elatine minima* à Terre-Neuve

Définitions

Avant d'examiner les critères de rareté, il serait utile de prendre connaissance des cinq catégories qui traduisent les degrés divers de danger ou de risque d'extinction. Ces termes suivent l'usage recommandé par le Comité sur le statut des espèces fauniques menacées d'extinction au Canada (CSEMDC) (Argus *et al.* 82-1987) et sont généralement conformes à ceux formulés par l'Union internationale pour la conservation de la nature (UINC) (Aymonin 1980).

- **Rare**: un taxon n'existant qu'en très petit nombre ou dans des zones très restreintes de la région étudiée, soit par suite de ses caractéristiques biologiques, soit parce qu'il s'agit de l'extrême limite de son territoire, soit pour quelqu'autre raison.

- **Vulnerable**: un taxon qui risque de devenir une espèce en voie de disparition dans la région étudiée, à moins que les conditions responsables de sa vulnérabilité ne soient éliminées.

- **Menacé**: un taxon menacé d'élimination prochaine dans l'ensemble ou dans une grande partie de la région étudiée, par suite de l'activité humaine.

- **Eradiqué**: un taxon qui a cessé d'exister à l'état sauvage dans la région étudiée, mais qui survit ailleurs.

- **Eteint**: un taxon qui croissait dans la région étudiée, mais qui n'existe plus nulle part.

Notre base de données actuelles nous permet de reconnaître que des plantes sont rares à Terre-Neuve, sans cependant désigner celles qui seraient vulnérables, menacées ou éradiquées. Il faut comprendre qu'une plante peut être rare sans être vulnérable; ainsi en est-il d'*Elatine minima* (fig. 1) et *Thelypteris palustris* var. *pubescens* qui sont dispersées sur un grand territoire, ou d'*Oxyria digyna* et *Viola palustris* (fig. 2) qui colonisent des habitats peu accessibles.

Critères

Comme le souligne Aymonin (1980), des définitions ou évaluations peuvent être adoptées à différents niveaux géographiques: local, régional, national ou mondial. Selon l'endroit et l'échelle géographique auxquels on se situe, la notion de rareté ne s'applique pas de la même manière. Ainsi une plante rare à Terre-Neuve (ex. *Maianthemum racemosum* ssp. *racemosum*) peut très bien être commune à l'échelle de l'est de l'Amérique du Nord (fig. 3), ou encore une plante plus ou moins répandue dans le nord-ouest de Terre-Neuve (ex. *Cypripedium calceolus* var. *planipetalum*) peut être rare à l'échelle de la province (fig. 4).

Les critères de rareté se rapportent au nombre de populations présentes et à leur répartition spatiale, rejoignant ainsi la définition de rareté donnée précédemment. La rareté est déduite à partir du nombre et de la répartition des localités où la plante a été récoltée à Terre-Neuve. Pour l'étude des populations de plantes susceptibles d'être rares, la principale

Figure 2: Répartition du *Viola palustris* à Terre-Neuve

Figure 3: Répartition du *Maianthemum racemosum* ssp. *racemosum* en Amérique du Nord

source d'information provient donc des herbiers et des cartes de répartition publiées. De plus, nous avons vérifié ces distributions par des travaux sur le terrain, en 1986, 1987, 1988, 1989 et 1990. Cependant, plusieurs régions de Terre-Neuve, telles que les Long Range Mountains ou la côte sud, étant peu accessibles, il faut s'attendre à ce que certaines répartitions soient modifiées à la suite d'autres explorations.

Les critères concernant le nombre de populations et leur répartition géographique peuvent être subdivisés en deux catégories: plantes avec populations limitées à une région et plantes ayant peu de populatons dispersées sur un vaste territoire.

Figure 4: Répartition du *Cypripedium calceolus* var. *planipetalum* à Terre-Neuve

Figure 5: Répartition du *Maianthemum racemosum* ssp. *racemosum* à Terre-Neuve

Figure 6: Répartition du *Potentilla pulchella* à Terre-Neuve

Plantes avec populations dans une aire restreinte

A Terre-Neuve, la côte ouest retient l'attention par les espèces à répartition restreinte. Par exemple, du sud au nord, un gradient climatique permet de retrouver dans la vallée de la Codroy des espèces méridionales, telles que *Maianthemum racemosum* ssp. *racemosum* (fig. 5). Alors qu'à l'extrémité nord de la Great Northern Peninsula, des espèces telles que *Astragalus alpinus* var. *alpinus* et *Potentilla pulchella* (fig. 6) colonisent des habitats caractérisés par un climat du type subarctique. Entre ces deux extrêmes climatiques, des espèces à répartition restreinte se retrouvent aussi, contraintes par des facteurs microclimatiques, édaphiques ou historiques. Mentionnons *Thelypteris quelpaertensis* sur le sommet des Long Range Mountains (fig. 7), *Polystichum scopulinum* dans la Bay of Islands (fig. 8), ou *Braya humilis* var. *humilis* sur Table Mountain dans le district de Port au Port (fig. 9).

Plusieurs des plantes rares de Terre-Neuve se trouvent à la limite de leur aire de répartition dans l'est de l'Amérique du Nord, soit vers le nord (ex. *Sagittaria latifolia* , fig. 10) ou vers le sud (ex. *Crepis nana*, fig. 11). Les habitats favorables à ces espèces sont restreints et peu nombreux. Rappelons que le fait d'avoir quelques populations restreintes à une région limitée n'empêche pas la plante d'être fréquente localement; c'est le cas notamment de l'endémique *Minuartia marcescens* qui se retrouve uniquement sur le plateau de serpentine au sud de Bonne Bay, mais dont néanmoins la population totale demeure faible. D'autres espèces à aire relativement restreinte peuvent être, au contraire, trop abondantes dans leur habitat pour être classées rares (ex. *Antennaria eucosma* et *Salix reticulata*).

Figure 7: Répartition du *Thelypteris quelpaertensis* à Terre-Neuve

Figure 8: Répartition du *Polystichum scopulinum* à Terre-Neuve

Plantes avec populations peu nombreuses et dispersées

La deuxième catégorie comprend des espèces dont les populations, en petit nombre, sont dispersées sur un vaste territoire, par exemple *Nymphoides cordata* et *Solidago sempervirens* (fig. 12). Ces espèces ont une grande répartition mais ne sont pas fréquentes. Même si elles se trouvent sur un territoire relativement grand, elles semblent rares partout où elles se rencontrent.

Figure 9: Répartition du *Braya humilis* var. *humilis* à Terre-Neuve

Figure 10: Répartition du *Sagittaria latifolia* en Amérique du Nord

Figure 11: Répartition du *Crepis nana* en Amérique du Nord

L'application de ces critères fait surgir une question importante: quel est le nombre critique de populations en deça duquel on considère une plante rare? Après examen des cartes de répartition et des données d'herbiers, nous avons considéré toutes les espèces présentant moins de 20 localités comme des candidats. Une évaluation plus approfondie tenait compte , ensuite, du type de répartition de la plante et des sources bibliographiques consultées. Ainsi, une quinzaine de localités pour une espèce donnée sur la côté ouest de Terre-Neuve représenterait une fréquence faible et une répartition restreinte, compte tenu de l'exploration botanique intensive qui s'y est effectuée et de la présence de plusieurs habitats spécialisés restreints. Par contre, une dizaine de sites répartis sur l'ensemble de l'île constituerait une vaste distribution compte tenu du fait qu'on se situe à une échelle géographique plus petite que sur la côté ouest et que ce territoire n'a pas fait l'objet de travaux exhaustifs.

La détermination des plantes rares est également tributaire de l'état de nos connaissances. Ainsi, la carte de E. Rouleau montre

Figure 12: Répartition du *Solidago sempervierns* à Terre-Neuve

Figure 13: Répartition du *Minuartia groenlandica* à Terre-Neuve

seulement deux localités pour *Minuartia groenlandica* et nous avait fait classer cette espèce comme rare dans un premier temps. Cependant, nos explorations sur le terrain et des données nouvelles provenant des herbiers ont modifié substantiellement sa répartition connue (fig. 13). Cette espèce est répandue sur les sommets granitiques de la côté sud, un habitat abondant et peu visité, et nous ne l'avons pas retenue comme plante rare. Certaines plantes, particulièrement les espèces aquatiques, semblent rares et dispersées sur un vaste territoire comme *Najas flexilis* et *Potamogeton spirillus* (fig. 14). Cependant, parce qu'elles passent facilement inaperçues et sont moins récoltées, de telles plantes pourraient s'avérer plus communes à la suite de nouvelles explorations et être retirées de la liste.

Les plantes introduites (*fide* Rouleau 1978), bien qu'elles soient parfois infréquentes, ne sont pas inclues dans la liste. Certains taxons indigènes à l'Amérique du Nord et rapportés de Terre-Neuve, n'ont pas été retenus car ils semblaient avoir été introduits sur l'île: ils sont mentionnés à l'Appendice 1. Par contre, quelques espèces (ex. *Gentianella propinqua* ssp. *propinqua*, *Scirpus atrovirens* et *Sparganium eurycarpum*) ont été classées comme rares malgré leur comportement adventice à l'occasion.

Présentation de la liste

Les plantes sont énumérées dans l'ordre alphabétique des noms scientifiques. Chacune des plantes de la liste est traitée sous les rubriques suivantes.

Nom scientifique

La nomenclature suit généralement Kartesz & Kartesz (1980) sauf en cas d'exceptions (cf. Synonymie et Sources). Nous n'avons pas donné les noms vernaculaires parce que bon nombre de plantes n'en possèdent pas et qu'ils ne sont pas toujours utilisés de façon uniforme.

Figure 14: Répartition du *Potamogeton spirillus* à Terre-Neuve

Synonymie

Les synonymes ne sont indiqués que lorsqu'ils sont indispensables à la consultation des ouvrages cités ou lorsqu'ils permettent de mieux comprendre les traitements taxonomiques adoptés dans les flores touchant notre territoire: Boivin (1966-67), Fernald (1950), Rouleau (1978) et Scoggan (1978-79).

Sources

Il s'agit des références qui nous ont aidées à déterminer la rareté d'une espèce ou d'une variété ou parfois une référence à la nomenclature suivie. La première partie de la rubrique comprend l'acronyme officiel des herbiers où sont conservés les spécimens témoins étudiés: Herbier national à Ottawa (CAN), Herbier du Service canadien des forêts à St. John's (CDFN), Herbier du ministère de l'Agriculture à Ottawa (DAO), Herbier Gray de l'Université d'Harvard (GH), Herbier Marie-Victorin de l'Université de Montréal (MT), et Herbier Agnes Marion Ayre de l'Université Memorial, à St. John's (NFLD).

Viennent ensuite les références à la littérature et à la correspondance avec les spécialistes qui ont influencé la décision de retenir un taxon sur la liste des plantes rares. Une source importante d'information était la collection de cartes de répartition non-publiées dressées par Ernest Rouleau et déposées à l'Herbier Marie-Victorin et à l'Herbier Agnes Marion Ayre.

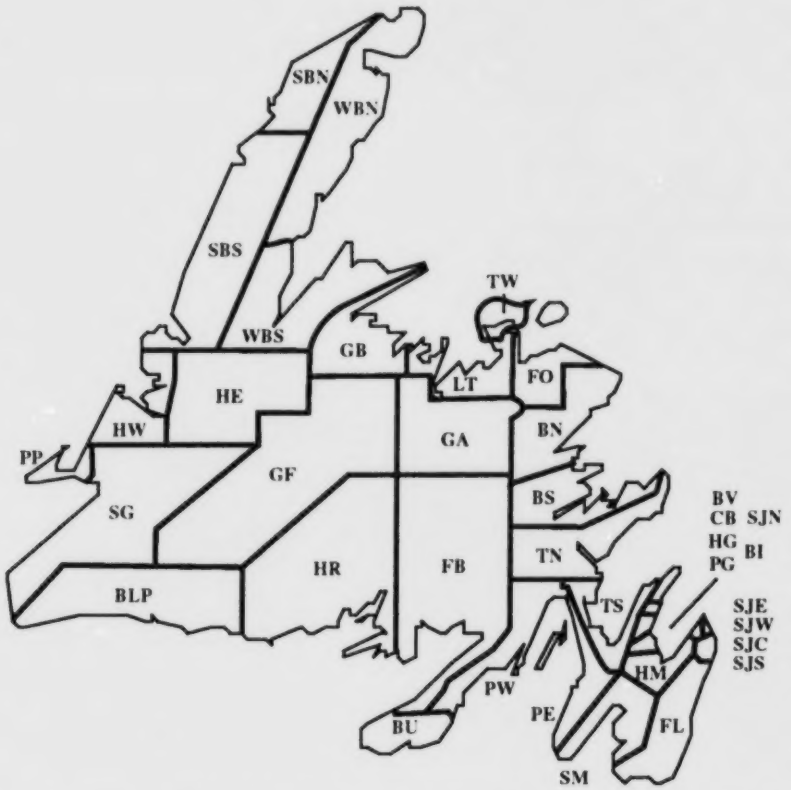

Figure 15: Circonscription des districts administratifs de l'Ile de Terre-Neuve, selon la carte de 1978. Les abbréviations sont les suivantes (selon l'ordre utilisé dans le texte): **WBN**, White Bay North; **SBN**, St.Barbe North; **SBS**, St.Barbe South; **HW**, Humber West; **HE**, Humber East; **PP**, Port-au-Port; **SG**, St.George's; **WBS**, White Bay South; **GB**, Green Bay; **GF**, Grand Falls; **TW**, Twillingate; **LT**, Lewisporte; **GA**, Gander; **FO**, Fogo; **BN**, Bonavista North; **BS**, Bonavista South; **TN**, Trinity North; **TS**, Trinity South; **BV**, Bay de Verde; **CB**, Carbonear; **HG**, Harbour Grace; **PG**, Port de Grave; **HM**, Harbour Main; **BI**, Bell Island; **SJN**, St.John's North; **SJE**, St.John's East (Extern.); **SJW**, St.John's West; **SJC**, St.John's Center; **SJS**, St.John's South; **FL**, Ferryland; **SM**, St.Mary's; **PE**, Placentia East; **PW**, Placentia West; **BU**, Burin; **FB**, Fortune Bay; **HR**, Hermitage; **BLP**, Burgeo and La Poile.

Répartition générale

Il s'agit de l'aire de répartition géographique des espèces en Amérique du Nord et d'une indication sommaire des aires de distribution dans le monde. Ces descriptions proviennent surtout de Scoggan (1978-1979) et parfois elles ont dû être modifiées par l'ajout d'information provenant de sources plus récentes. La citation aux latitudes canadiennes est donnée généralement de l'ouest à l'est et du nord au sud.(Alas-Y-Mack-K-F; CB-Alta-Sask-Man, Ont, Que, NB, PEI, NS, SPM, Nfld-Lab). Le tiret indique une répartition continue et la virgule une distribution discontinue. L'aire approximative de répartition aux Etats-Unis est donnée en indiquant les états constituant la limite sud. Une indication générale de l'aire de l'espèce au-delà de l'Amérique du Nord suit, par exemple G (Groënland) et Eurasie. Si d'autres références ont servi à l'établissement des aires de répartition, celles-ci sont fournies, mais le format n'en a pas été modifié pour se conformer à celui de Scoggan.

Répartition à Terre-Neuve

L'aire de répartition à Terre-Neuve se fonde sur la liste des districts administratifs pour lesquels des spécimens d'herbier existent. Les districts sont donnés selon l'ordre suivant: région de la côte ouest, de la Great Northern Peninsula (White Bay North District) à la Codroy Valley (St. Georges District); région du centre-nord de la Baie Verte Peninsula (White Bay South District) à la Bonavista Peninsula (Trinity North District); région de l'Avalon Peninsula, de la Trinity Bay (Trinity South District) à la Placentia Bay (Placentia East District); région de la côte sud, de la Burin Peninsula (Placentia West District) à Port aux Basques (Burgeo and LaPoile District). Etant donné que les spécimens d'herbier sont souvent associés à d'anciens districts administratifs, nous avons retenu les délimitations présentées sur la figure 15, sans tenir compte des modifications plus récentes. Lorsqu'il n'y a qu'une ou deux localités connue pour une plantes rare, celles-ci sont mentionnées d'une façon générale.

Renvois aux cartes

Nous avons indiqué les références aux cartes de répartition contenant une information pertinente pour Terre-Neuve.

Ecorégions

Cette rubrique donne la liste des écorégions de l'île de Terre-Neuve, telles que définies par Damman (1983), où des populations d'une espèce rare ont été relevées. La délimitation et les acronymes de ces régions sont présentés à la figure 16.

Habitat

La brève description de l'habitat est établie à partir des renseignements des étiquettes d'herbiers et de notre expérience de terrain.

Statut

Cette section indique si un taxon est rare à l'échelle canadienne (Argus & Pryer 1990), c'est-à-dire rare dans toutes les provinces et territoires où la plante se trouve. Les cotes sont celles proposées par The Nature Conservancy des Etats-Unis (1982, avec les révisions de 1988) et elles sont fondées sur le nombre de localités connues (N1-en danger, à N5-sécure). Ces données proviennent d'Argus & Pryer (1990) qui décrivent cette classification avec de détails.

Les conditions de rareté d'une espèce ou d'une variété des provinces et territoires du Canada proviennent des listes publiées pour l'Alberta (Argus & White 1978, Packer & Bradley 1984), la Colombie-Britannique (Straley *et al.* 1985), le Manitoba (White & Johnson 1980), le Nouveau-Brunswick (Hinds 1983), la Nouvelle-Ecosse (Maher *et al.* 1978), l'Ontario (Argus & White 1977, Argus *et al.* 1982-87), le Québec (Bouchard *et al.* 1983), la Saskatchewan (Maher *et al.* 1979), les Territoires du Nord-Ouest (Cody 1979) et le Yukon (Douglas *et al.* 1981). Les conditions de rareté pour les Etats-Unis ne sont pas indiquées, étant donné le nombre des états et les changements fréquents aux listes publiées. On peut s'adresser à The Nature Conservancy des Etats-Unis pour obtenir ces données.

Rareté à Terre-Neuve

Les cotes de The Nature Conservancy des Etats-Unis (1982, avec les revisions de 1988) et d'Argus & Pryer (1990), fournissent une évaluation synthétique du degré de rareté d'une espèce à Terre-Neuve. Elles sont définies ainsi:

- **S1**: Sérieusement en danger sur l'île de Terre-Neuve à cause de sa rareté extrême (5 localités ou moins ou très peu d'individus ou d'hectares subsistant) ou à cause de certains facteurs qui rendent le taxon particulièrement vulnérable à l'éradication dans l'île.
- **S2**: En péril sur l'île de Terre-Neuve à cause de sa rareté (6 à 20 localités ou peu d'individus ou d'hectares subsistants) ou à cause de certains facteurs rendant le taxon vulnérable à l'extirpation sur l'île.
- **S3**: Rare ou peu commun sur l'île de Terre-Neuve (de l'ordre de 21 à 100 localités).
- **SH**: Historiquement connu sur l'île de Terre-Neuve, mais présence non vérifiée depuis 20 ans, et soupçonné d'être toujours présent. Naturellement, un taxon deviendrait SH sans ce délai de 20 ans si les seules colonies connues sur l'île étaient détruites ou si le taxon avait fait l'objet de recherches intenses, quoique sans succès, alors qu'il est toujours soup-

Figure 16: Ecoregions de l'île de Terre-Neuve, selon Damman (1983). Les abbréviations sont les suivantes (les chiffres romains indiquent les écorégions, les lettres les sous-régions): **I.** Western Newfoundland: **A.** Serpentine Range, **B.** Corner Brook, **C.** Port au Port, **D.** St. George's Bay, **E.** Codroy, **F.**Bay d'Espoir; **II.** Central Newfoundland: **A.** Northcentral, **B.** Red Indian Lake, **C.** Portage Pond, **D.** Twillick Steady; **III.** Northshore; **IV.** Northern Peninsula: **A.** Coastal Plain, **B.** Beaver Brook Limestone, **C.** Northern Coastal, **D.** Eastern Long Range; **V.** Avalon Forest; **VI.** Maritime Barrens: **A.** Northeastern Barrens, **B.** Southeastern Barrens, **C.** South Coast Barrens, **D.** Central Barrens; **VII.** Eastern Hyper-oceanic Barrens; **VIII.** Long Range Barrens: **A.** Southern Long Range, **B.** Buchans Plateau-Topsails, **C.** Northern Long Range; **IX.** Strait of Belle Isle

çonné d'être présent. A la relocalisation d'une population, un taxon évalué SH recevrait la cote S1. La cote SH devrait être réservée aux taxons pour lesquels un certain effort a été fait pour retrouver des localités, plutôt que d'y classer tout simplement les taxons n'ayant pas été vérifiés.

Remarques

Cette rubrique comprend des renseignements supplémentaires permettant de mieux comprendre le taxon présenté. Par exemple, lorsqu'il n'y a qu'une ou deux localités connues, nous indiquons les noms des collecteurs et les dates de récoltes. Merritt L. Fernald et E. Rouleau, en particulier, ont fait de nombreuses explorations à Terre-Neuve, couronnées de découvertes intéressantes. Des commentaires d'intérêt phytogéographique, la localité d'où proviennent les spécimens-types, ou parfois certaines réserves quant à la valeur taxonomique du taxon sont aussi présentés. Enfin, dans le cas de certaines espèces peu récoltées, de nouvelles explorations pourraient changer nos connaissances et conduire à une réévaluation de leur statut de rareté.

Appendices

La liste principale est suivie de deux appendices. L'Appendice I dresse un répertoire des espèces et variétés exclues. Les motifs d'exclusion sont indiqués dans l'appendice par des codes expliqués au début de celui-ci. De plus, nous avons inclus dans l'Appendice I les taxons considérés comme rares à Terre-Neuve par Argus & Pryer (1990) et Day (1989), mais qui ne pouvaient être retenus selon nos critères finaux de sélection. L'Appendice II donne la liste des plantes vasculaires rares de Terre-Neuve en suivant l'ordre taxonomique du projet *Flora of North America*, qui pour les Angiospermes suit Cronquist (1981). Les noms en italique sont des synonymes dans cette liste.

Cartes

Chacune des espèces dans la liste fait l'objet d'une carte illustrant sa répartition dans l'île de Terre-Neuve. Ces cartes ont été établies à partir des spécimens d'herbier relevés dans une base de données informatisée.

Modes de répartition des plantes rares à Terre-Neuve

Afin de mieux comprendre la répartition des plantes vasculaires rares dans l'île de Terre-Neuve, nous avons procédé à l'analyse de groupement des écorégions de Damman (1983; fig. 16) en fonction des espèces rares qu'elles possèdent (fig. 17). Cette analyse essaie de regrouper les unités géographiques selon les similitudes floristiques qu'elles présentent les unes avec les autres. Trois sous-régions (Bay d'Espoir, Twillick Steady et Portage Pond) ne recelaient aucun taxon rare et ne furent pas incluses dans l'étude. Par ailleurs, quatre sous-régions, Northern Coastal, Beaver Brook Limestone, Eastern Long Range et Central Barrens, ne pouvaient être placées correctement dans une analyse préliminaire à cause du petit nombre d'espèces qu'elles possèdent. Elles furent donc retirées de l'analyse, qui porta ainsi sur 18 unités biogéographiques. Une fois celle-ci complétée, nous les avons placées manuellement sur le dendrogramme choisi, à la position paraissant la plus appropriée. Nous avons procédé à plusieurs types d'analyse de regroupement, mais n'avons retenu aux fins de la discussion, que le dendrogramme effectué selon la méthode de Lance & Williams (1967), car il nous semblait mieux refléter les relations biogéographiques.

Le dendrogramme divise d'abord les 18 régions écologiques en deux grands ensembles (fig. 16 et 17). Le premier embranchement, (groupes 1 à 3, allant de Serpentine Range à Northern Long Range), dans la partie supérieure du dendrogramme, possède 80 espèces rares restreintes à l'une ou l'autre de ses régions, telles que *Anemone multifida, Galium kamtschaticum, Osmorhiza depauperata, Salix ballii* et *Woodsia glabella* (voir les cartes des espèces). Ce premier comprend les régions occidentales et

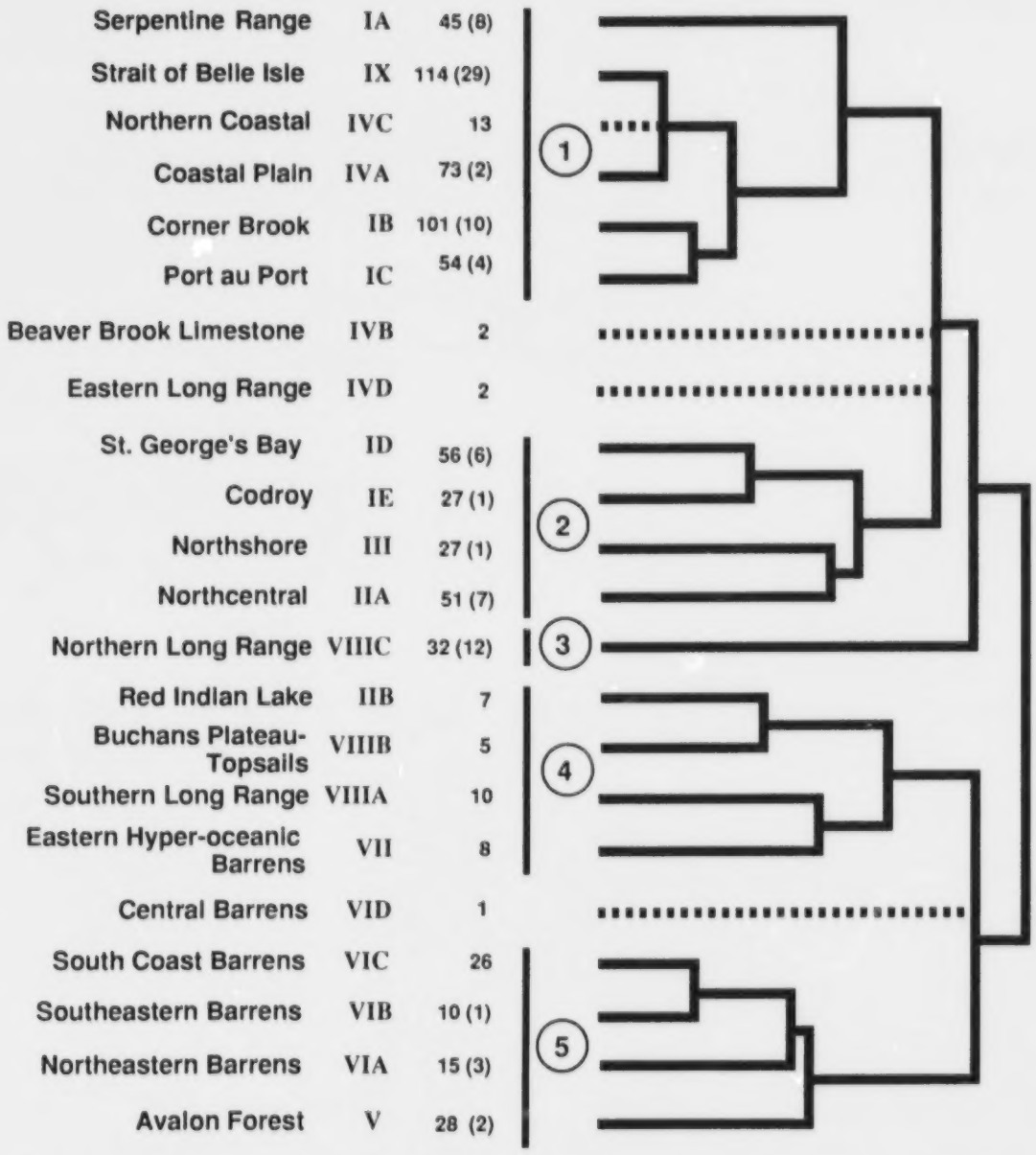

Figure 17: Dendrogramme résultant de l'analyse de groupement des écorégions et sous-régions de Damman (1983; Fig. 16) en fonction des espèces rares qu'elles possèdent (analyse de Lance & Williams, beta =-0.25, coefficient de Jaccard). L'analyse utilisée tente de regrouper les unités géographiques selon les similitudes floristiques qu'elles présentent les unes avec les autres. Trois sous-régions (Bay d'Espoir, I F, Twillick Steady, II B, et Portage Pond, II C) ne recelaient aucun taxon rare et ne furent pas incluses dans l'étude. Par ailleurs, quatre sous-régions, Central Barrens, Beaver Brook Limestone, Northern Coastal et Eastern Long Range, ne pouvaient être placées correctement dans une analyse préliminaire. Elles furent donc retirées de l'analyse, qui porte sur 18 unités biogéographiques. Une fois celle-ci complétée, nous les avons placées manuellement sur le dendrogramme choisi, à la position la plus appropriée selon nos connaissances. De gauche à droite sur la figure sont donnés: le nom des écorégions et sous-régions de Damman, leur abbréviation tel qu'utilisé à la figure 16 et dans la liste des espèces rares, le nombre d'espèces rares par région avec entre parenthèses celui des espèces uniques à celle-ci, et le numéro des groupes discutés dans le texte.

septentrionales de la Grande Péninsule du Nord, la côte ouest de l'île, le système de la rivière aux Exploits et la côte nord découpée (fig. 16). Le deuxième embranchement (groupes 4 et 5, allant de Red Indian Lake à Avalon Forest), dans la partie inférieure du graphique, n'a que six espèces uniques, incluant *Lycopodium appressum* et *L. digitatum*. Il comprend surtout les régions méridionales et orientales de la côte sud et les plateaux intérieurs dénudés adjacents, la péninsule de Burin et la péninsule d'Avalon (fig. 16).

Régions du nord et de l'ouest

La richesse en espèces de ce premier embranchement majeur (groupes 1 à 3) est due à l'important gradient climatique de la côte ouest, allant de la sous-région Codroy, au sud, à l'écorégion Strait of Belle Isle, au nord, superposé à une impressionnante variabilité géologique, puisque calcaire, péridotite et granite se côtoient. La région la plus riche, Strait of Belle Isle, contient 114 espèces rares, dont 29 lui sont exclusives, suivie de la région Corner Brook avec 101 espèces, dont 10 uniques. Ce premier regroupement se divise en trois.

Le groupe 1 comprend les écorégions de la côte ouest et de la Great Northern Peninsula, de Port au Port à Strait of Belle Isle (fig. 16 et 17). Il est caractérisé par des espèces telles que *Carex glacialis, Drosera linearis, Festuca prolifera, Lesquerella arctica* et *Malaxis monophyllos* var. *brachypoda*. Ces régions reposent sur une assise rocheuse calcaire sauf pour Serpentine Range. Cette dernière se distingue par sa roche-mère exceptionnelle, constituée de roches mafiques et ultramafiques serpentinisées. Des espèces de milieux serpentiniques ouverts telles que *Cerastium terrae-novae, Draba lactea, Minuartia marcescens* et *Polystichum scopulinum* sont restreintes à cette région. Au nord-ouest, deux régions comprenant des surfaces exposées de calcaire, Strait of Belle Isle et Coastal Plain, ont en commun plusieurs espèces, telles que *Arnica griscomii* ssp. *griscomii, Cardamine pratensis* ssp. *angustifolia, Carex bicolor* et *C. microglochin*. Les deux autres régions du sous-ensemble 1, Corner Brook et Port au Port, sont aussi caractérisées par le calcaire. Des espèces comme *Braya humilis, Carex petricosa* var. *misandroides, Dryas drummondii, Erigeron compositus, Hedysarum boreale* ssp. *mackenzii* et *Senecio cymbalaria*, sont restreintes à l'une ou l'autre de ces régions. Les substrats calcaires ou ultramafiques, exposés ou instables, de ces régions sont responsables de la présence de plusieurs éléments remarquables de la flore, ceux d'affinités arctiques-alpines ou cordillériennes et les endémiques (Bouchard *et al.* 1986; Damman 1965). La région de Corner Brook se distingue de plus par des éléments ripariens et aquatiques uniques tels que *Alisma plantago-aquatica* var. *americanum, Lysimachia thyrsiflora* et *Sagittaria latifolia*.

Le groupe 2, allant de St. George's Bay à Northcentral, comprend des régionsqui ont en commun de chaudes vallées de rivières avec végétation alluviale, des endroits aux sols secs et sablonneux, et les marais salés estuariens les mieux développés. Ce groupe est caractérisé par *Calla palustris, Crataegus chrysocarpa, Pinus resinosa* et *Spartina patens*.
St. George's Bay et Codroy, deux régions adjacentes du sud-ouest de Terre-Neuve, possèdent des espèces plus méridionales des régions tempérées et des forêts décidues, telles que *Acorus americanus, Claytonia caroliniana* var. *caroliniana, Dryopteris marginalis, Hydrocotyle americana, Hypericum ellipticum, Impatiens pallida* et *Ranunculus recurvatus*. Les vallées de ces régions sont les enclaves les plus chaudes de l'île, ce qui explique la présence de ces espèces rares (Damman 1965, 1976). Il faut souligner que, dans d'autres analyses que nous avons faites, ces deux régions montrent des affinités avec les sous-régions Corner Brook et Port-au-Port du groupe 1, avec qui elles partagent plusieurs espèces calcicoles et halophytiques. De forts liens floristiques existent entre toutes ces régions et les deux suivantes. Ces deux autres régions, Northshore et Northcentral, sont les seules du premier embranchement, dans la partie supérieure du dendrogramme (fig. 17), à ne pas être situées sur la côte ouest. Cependant, elles se rattachent à ce grand ensemble à cause d'éléments maritimes comme *Limonium carolinianum* et *Solidago sempervirens*, ou de bords de rivières, tels que *Crataegus chrysocarpa* et *C. macrosperma* var. *acutiloba*. Toutefois, les régions de

Northshore et Northcentral se distinguent par des espèces situées à la limite nord-est de leur aire comme *Carex houghtonii*, *Chimaphila umbellata* var. *cisantlantica*, *Pinus resinosa* et *Polygala paucifolia*. Leur répartition restreinte est reliée au climat relativement chaud et à la présence de sols sablonneux secs dans le centre-nord de Terre-Neuve (Damman 1965, 1976).

Le groupe 3 , la sous-région des Northern Long Range, s'isole par son caractère particulier. Il est caractérisé par un relief alpin accidenté, entrecoupé de fjords. L'assise rocheuse est fortement acide, composée de granite, de granite-gneiss et des affleurements de quartzite. Plusieurs plantes arctiques ou alpines, telles que *Athyrium alpestre* ssp. *americanum*, *Gnaphalium supinum*, *Lycopodium alpinum*, *Sibbaldia procumbens*, *Thelypteris quelpaertensis* et *Vahlodea atropurpurea* var. *atropurpurea* ne se retrouvent que dans cette région. Damman (1976) attribue la répartition limitée de ces espèces à la présence d'habitats critiques dans ces montagnes, comme les combes à neige.

Régions du sud et de l'est

Le deuxième groupement d'écorégions résultant du premier embranchement (groupes 4 et 5, allant de Red Indian Lake à Avalon Forest) se trouve dans la partie inférieure du dendrogramme (fig. 17). Il comprend les péninsules Avalon et Burin du sud-est, la côte sud et les landes des plateaux intérieurs (fig. 16). Des facteurs comme le climat océanique humide, la fréquence du brouillard et des affleurements siliceux exposés rendent compte des différences floristiques constatées avec les trois groupes de la partie opposée du dendrogramme.

Le groupe 4, allant de Red Indian Lake à Eastern Hyper-oceanic Barrens, paraît quelque peu artificiel car il résulte du regroupement de régions qui possèdent peu d'espèces rares. Il comprend quatre régions, dont les trois premières, Red Indian Lake, Buchans Plateau-Topsails et Southern Long Range, sont contigües dans la partie sud-ouest de l'île, alors que la quatrième, Eastern Hyper-oceanic Barrens, se retrouve dans le sud-est. Elles ne possèdent pas d'espèce unique et ne sont caractérisées que par des espèces à grande répartition (ex. *Platanthera grandiflora*), dont la plupart se retrouvent dans le groupe 5.

Enfin le dernier groupe, le groupe 5, allant de South Coast Barrens à Avalon Forest (fig. 16 et 17), comprend des régions concentrées dans les parties est et sud-est de l'île de Terre-Neuve. Il comprend les éléments de la plaine côtière, plus méridionaux. Parmi ceux-ci on trouve, le caractérisant, *Elatine minima*, *Gratiola aurea*, *Hudsonia ericoides*, *Limosella australis*, *Lycopodium appressum*, *Myrica pensylvanica*, *Nymphoides cordata* et *Utricularia purpurea*. La répartition de ces espèces océaniques sur l'île est contrôlée par leur intolérance aux températures hivernales extrêmes (Damman 1965). Quelques autres espèces sont uniques à ce groupe, sans explication apparente, dont *Hieracium robinsonii*, *Lycopodium digitatum*, *Sparganium fluctuans* et *Suaeda richii*.

Affinités phytogéographiques des espèces rares

Les plantes vasculaires rares de Terre-Neuve montrent donc des modes distincts de répartition dans les écorégions de l'île, selon leur écologie propre. Il est aussi possible de discuter ces espèces en fonction de leur répartition globale. Les biogéographes reconnaissent au sein des flores des éléments floristiques, dont chacun correspond à l'ensemble des espèces ayant une aire de répartition géographique semblable et, présumément, ayant été soumises à une histoire et à des conditions écologiques similaires. Bouchard *et al.*(1978) et Mednis (1981) établissaient le spectre général de ces éléments phytogéographiques en ce qui concerne Terre-Neuve. Pour cette analyse, nous avons eu recours au schème utilisé par Bouchard *et al.* (1987, 1990) pour la flore du parc national du Gros-Morne. Cette approche jette un éclairage sur la diversité des origines des plante vasculaires rares de l'île de Terre-Neuve.

Parmi les 271 plantes vasculaires rares de l'île de Terre-Neuve, les éléments nord-américains prédominent avec 64,6% (175) des

espèces. Ce pourcentage inclut 26,6% (72) d'éléments restreints à l'est du continent, parmi lesquels se retrouvent surtout des espèces comme *Carex pedunculata*, *Cypripedium reginae*, *Cystopteris laurentiana*, *Fraxinus nigra* et *Maianthemum racemosum* var. *racemosum* (fig.3), provenant de la région de la forêt décidue (46 ou 17%), en particulier de la région Grands Lacs-Saint-Laurent, et de la plaine côtiere atlantique (16 ou 6%), comme *Cladium mariscoides*, *Limonium carolinianum*, *Lycopodium appressum*, *Solidago sempervirens* et *Spartina alterniflora*. Ces éléments se rencontrent surtout dans le sud-ouest et dans le sud de l'île (voir section antérieure). Les autres espèces nord-américaines (54 ou 20%) sont surtout boréales (26 ou 9,6%) et traversent le continent aux latitudes canadiennes, dans la forêt conifériennе. Mentionnons *Amerorchis rotundifolia*, *Cynoglossum boreale*, *Oryzopsis canadensis*, *Prenanthes racemosa* et *Salix pedicellaris*. Dans ce groupe, un élément important sur le plan biogéographique est l'ensemble des espèces cordillériennes, c'est à dire des montagnes Rocheuses, disjointes autour du golfe du Saint-Laurent, qui représente 5,5% (15) des espèces rares de l'île. Cet élément doit sa notoriété aux théories qu'ont mis de l'avant plusieurs auteurs pour expliquer cette grande disjonction (Fernald 1925a; Marie-Victorin 1938; Drury 1969; Miller & Thompson 1979; Morisset 1979; Rousseau 1974). Dans ce groupe se trouvent *Astragalus bodinii*, *Dryas drummondii*, *Osmorhiza chilensis*, *Polystichum scopulinum* et *Senecio pauciflorus*. L'explication la plus probable est que ces espèces aient migré vers l'est du continent dans un corridor d'habitats favorables le long des glaciers, au moment de la retraite de ceux-ci (Rousseau 1953). L'élément arctique-alpin nord-américain ne comprend que 6 espèces (2.2%): *Carex glacialis*, *Erigeron compositus*, *Oxytropis deflexa*, *Salix arctophila*, *Taraxacum phymatocarpum* et *Veronica wormskjoldii*. Un autre élément fort important est celui des endémiques, les espèces qui sont restreintes dans leur répartition à la région du golfe du Saint-Laurent ou même à Terre-Neuve; 34 (12,6%) sont reconnues rares, dont *Arnica griscomii* ssp. *griscomii*, *Braya fernaldii*, *Cypripedium calceolus* var. *planipetalum*, *Isoetes acadiensis*, *Poa fernaldii* et *Suaeda richii*. Cependant, 9 d'entre elles sont des *Antennaria* dont le statut taxonomique est douteux; d'autres taxons pourraient aussi voir leur statut changer.

A ces espèces nord-américaines s'ajoutent des taxons qui se trouvent aussi sur d'autres continents. Ainsi, deux (0,7%) sont cosmopolites, *Potamogeton pectinatus* et *Hymenolobus procumbens*. Quelques-unes (18 ou 6,6%) sont amphi-atlantiques, c'est à dire qu'elles se retrouvent de façon naturelle des deux côtés de l'Atlantique, un phénomène particulièrement marqué dans le nord-est de l'Amérique. Mentionnons *Alchemilla alpina*, *Bartsia alpina*, *Cassiope hypnoides*, *Platanthera albida* et *Salix herbacea*. Quelques espèces amphi-béringiennes (7 ou 2,6%), i.e. qui se trouvent en Amérique et en Sibérie de part et d'autre de la mer de Béring, atteignent Terre-Neuve de façon disjointe: *Festuca altaica*, *Galium kamtschaticum*, *Hordeum brachyantherum*, *Poa eminens*, *Thelypteris quelpaertensis* et *Senecio cymbalaria*. D'autres espèces rares (10 ou 3,7%) sont transcontinentales en Amérique du Nord et disjointes dans l'est de l'Asie, comme *Danthonia intermedia*, *Equisetum hyemale*, *Lesquerella arctica* et *Parnassia kotzebuei*. *Thelypteris palustris* est disjointe entre l'est de l'Asie et la forêt décidue nord-américaine. Cependant, le plus abondant dans cette catégorie générale est l'élément circumpolaire, avec 58 espèces (21%). Dans celui-ci prédominent les taxons arctiques-alpins (27 ou 10%), tels *Carex microglochin*, *Cystopteris montana*, *Potentilla pulchella*, *Salix arctica* et *Saxifraga rivularis*, et circumboréaux (20 ou 7,4%) comme *Androsace septentrionalis*, *Brasenia schreberi*, *Lysimachia thyrsiflora*, *Najas flexilis* et *Ranunculus gmelinii*. Les éléments arctiques-alpins disjoints, comme les éléments cordilléries, se trouvent dans des habitats reliques (sommets alpins, falaises maritimes, rochers serpentiniques ou calcaires instables) autour du golfe où ils ont survécu depuis la retraite glaciaire (Fernald 1925a; Marie-Victorin 1938; Drury 1969; Miller & Thompson 1979; Morisset 1979).

La flore des espèces rares de Terre-Neuve est donc dominée, dans l'ordre, par les éléments de la forêt tempérée, les éléments circumpolaires ou nord-américains, suivis des

éléments cordillériens et des espèces endémiques.

On peut aussi examiner la répartition latitudinale des taxons. Les statistiques révèlent que la majorité des espèces de plantes vasculaires rares de l'île de Terre-Neuve sont boréales (90 ou 33%) et boréo-tempérées (23 ou 8,5%), ce qui est normal étant donné la situation géographique de l'île. Mais les taxons tempérés (71 ou 26%) et arctiques-alpins (69 ou 25,5%) suivent de près; 16 espèces sont subarctiques (6%) et 2 cosmopolites (0,7%). Dans la flore du parc national du Gros-Morne, raisonnablement représentative de Terre-Neuve, les éléments boréaux représentent 70% des espèces, la flore arctique-alpine 8% et tempérée 13% (Bouchard *et al.* 1990). Ceci indique que les taxons tempérés et arctiques, atteignant respectivement leurs limites nord-est ou sud-est sur le continent, contribuent une proportion significative de la flore vasculaire rare de l'île, au-delà de leur représentation dans l'ensemble de la flore. Il en est également ainsi des taxons de la plaine côtière (6% vs 1% dans l'île) ou endémiques (12,6% vs 1%). Ces faits résument bien les facteurs écologiques et géo-historiques responsables de la rareté dans une région insulaire, limitrophe au continent, boréale et récemment couverte de glaciers comme Terre-Neuve: des espèces répandues ailleurs deviennent rares à la périphérie de leur aire, certaines populations, isolées, produisent des endémiques, enfin d'autres taxons sont des reliques disjointes, témoins de climats ou de migrations passés.

Protection des plantes rares à Terre-Neuve

Plusieurs espèces dans la liste des plantes vasculaires rares pourraient être menacées ou en voie de disparition dans l'ensemble ou dans une partie considérable de l'aire qu'elles occupent à Terre-Neuve. Quelques examples, dont *Astragalus bodinii*, *Calypso bulbosa*, *Crepis nana*, *Hedysarum boreale* ssp. *mackenzii* et *Senecio cymbalaria*, ont été répertoriés dans une localité seulement et leurs population sont vulnérables. Evidemment, l'énumération de ces plantes ne sera pas suffisante pour en assurer la préservation.

Le Gouvernement de Terre-Neuve et du Labrador, en tant que responsable du patrimoine naturel, devra trouver les mécanismes nécessaires, allant des outils législatifs à la sensibilisation de la population, pour préserver les espèces rares et menacées d'extinction. Peu de temps après son entrée dans la confédération canadienne en 1949, la province adoptait en 1952 le *Provincial Parks Act*. Par cette loi, le Gouvernement reconnaissait le principe de la protection du patrimoine naturel, en donnant un pouvoir réglementaire pour «The use, care, preservation and improvement of and safety within provincial parks including the rivers, lakes, trees, shrubbery and other things whether animate or inanimate». Trente ans plus tard, comme plusieurs autres provinces l'ont fait, le Gouvernement de Terre-Neuve et du Labrador adoptait, en 1980, le *Wilderness and Ecological Reserves Act*. Alors que la première loi était plutôt orientée vers la récréation, cette deuxième loi est davantage axée sur la conservation. Ces deux lois, qui visent toutes deux la valorisation du patrimoine naturel, offrent des outils différents mais complémentaires, allant de l'éducation à la préservation d'habitats riches en espèces rares et menacées. Quoique le réseau de parcs provinciaux soit bien développé et comprenne quelques sites d'importance écologique, celui des réserves écologiques en est évidemment à ses débuts. Plus de dix réserves ont été proposées pour l'île par le conseil consultatif et la plupart ont reçu un statut provisoire par le gouvernement (May 1990). Le stratégie de conservation de la province devrait bénéficier du présent travail dans la reconnaissance de sites prioritaires récelant d'important concentrations de plantes rares.

Enfin, le Gouvernement du Canada contribue aussi à la protection des plantes rares dans des parcs nationaux comme ceux du Gros Morne (site du Patrimoine mondial de l'UNESCO) et de Terra Nova, ou dans des parcs historiques nationaux comme ceux de Port au Choix et de l'Anse aux Meadows (site du Patrimoine mondial de l'UNESCO).

Ce bref survol démontre que le Gouvernement de Terre-Neuve et du Labrador

dispose déjà d'outils légaux pour la protection des plantes rares. Cependant, il devra s'assurer qu'un organisme gouvernemental coordonne un programme de protection des espèces rares et menacées. Si un tel programme n'est pas élaboré et mis en vigueur, le projet d'inventaire des plantes rares de Terre-Neuve n'aura pas atteint l'un de ses principaux buts: la conservation d'une partie du patrimoine naturel.

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List of the Rare Vascular Plants of the Island of Newfoundland / Liste des plantes vasculaires rares de l'île de Terre-Neuve

Acorus americanus (Raf.) Raf.
(Syn. *Acorus calamus* auctt., non L., *Acorus calamus* L. var. *americanus* (Raf.) H.D. Wulff)

SOURCES	MT; Hay *et al.* 1990, Packer & Ringius 1984, Rouleau (unpublished maps).
RANGE	Great Slave L. and BC to Alta, Sask, Man, Ont, Que, NB, PEI, NS and Nfld; south to Wash, Ida, Mont, Tex and Fla (Scoggan 1978-79 emend.).
NFLD	St. George's (O'Reagans).
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Packer & Ringius 1984; Porsild & Cody 1980.
HABITAT	Marshy shores of rivers.
ECOREGIONS	IE
STATUS	Rare in Northwest Territories.
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by E. Rouleau in 1961; not relocated since. Packer & Ringius (1984) have shown that this plant, known as *A. calamus* (a sterile European triploid, introduced in North America), is the fertile indigenous diploid, *A. americanus*.

Acorus calamus = Acorus americanus

Acorus calamus var. **americanus = Acorus americanus**

Agrostis perennans (Walt.) Tuckerm.

SOURCES	DAO; Rouleau (unpublished maps).
RANGE	Ont, Que, NB, PEI, NS, Nfld, south to Tex and Fla (Scoggan 1978-79).
NFLD	Humber East; St. George's; Gander.
MAP	Hitchcock & Chase 1950.
HABITAT	Moist thickets and shores.
ECOREGIONS	IB, IE, IIA
NFLD RARITY	S1
NOTES	An easily overlooked species that may be undercollected.

Alchemilla alpina L.

SOURCES	MT, NFLD; R.M. Etcheberry (pers. comm.), Rouleau (unpublished maps).
RANGE	Nfld, SPM; G; Iceland; Europe.
NFLD	Hermitage.
MAP	Böcher 1938, 1954; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965.
HABITAT	Talus slopes and damps ravines.
ECOREGIONS	VIC
NFLD RARITY	S1
NOTES	Hultén & Fries (1986) hold the opinion that this amphi-Atlantic species may be introduced in Newfoundland .

Alisma plantago-aquatica L. var. **americanum** Schultes & Schultes
(Syn. *Alisma triviale* Pursh)

SOURCES	MT, NFLD; Rouleau (unpublished maps).
RANGE	BC-nAlta, Sask, Man, Ont, Que, NB, PEI, NS, Nfld, south to Baja Cal, Mexico, Tex and Fla (Scoggan 1978-79).
NFLD	Humber East (Deer Lake); Harbour Main (Long Pond Marsh).
MAP	Fleurbec 1987; Hendricks 1957; Hultén 1962; Hultén & Fries 1986; Meusel 1943; Meusel *et al.* 1965.
HABITAT	Wet river banks and shores.
ECOREGIONS	IB, VIA
NFLD RARITY	S1
NOTES	Known from only two localities where it was collected by Steele in 1951, and by H.E. Smith in 1972. Relocated in 1989.

Alisma triviale = Alisma plantago-aquatica var. **americanum**

Allium schoenoprasum L.
(Syn. *Allium schoenoprasum* L. var. *laurentianum* Fern., *Allium schoenoprasum* L. var. *sibiricum* (L.) Hartm.)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	n-cAlas to Y, Mackenzie R. Delta to Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), Man, northernmost Ont, Que, seLab, wNfld, NB and NS; south westward to Ore, Mont, Colo and eastward to Sask, Man, Minn, Mich and nNew England; Eurasia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1966a; Porsild & Cody 1980; Tardif & Morisset 1990.
HABITAT	Limestone cliffs, talus and barrens; calcareous shores.
ECOREGION	IB, IVA, IVC, IX
STATUS	Rare in Nova Scotia (var. *laurentianum*).
NFLD RARITY	S2
NOTES	St. John Island is the type locality of the endemic var. *laurentianum* (Fernald 1926). However, Tardif & Morisset (1990) were unable to distinguish two clear-cut infraspecific taxa in eastern Canada. Collections from around the city of St. John's are garden escapes of cultivated chives (var. *schoenoprasum*).

Allium schoenoprasum var. **laurentianum = Allium schoenoprasum**

Allium schoenoprasum var. **sibiricum = Allium schoenoprasum**

Amelanchier fernaldii Wieg.

SOURCES	CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	eQue, NB, NS and wNfld (Scoggan 1978-79).
NFLD	St. Barbe South; Port au Port.
MAP	Cinq-Mars 1971(Que); Jones 1946.
HABITAT	Peaty margins of ponds; talus and damp ravines; on limestone.
ECOREGION	IC, ID, IX
NFLD RARITY	S1
NOTES	Eastern *Amelanchier* taxa form a morphologically diverse, freely hybridizing, polyploid, agamic complex requiring critical biosystematic study. W.A. Robinson (1982, pers. comm.) suggests that *A. fernaldii* is a putative hybrid between *A. bartramiana* (Tausch) Roemer and *A. laevis* Wieg.

Amerorchis rotundifolia (Banks ex Pursh) Hult.
(Syn. *Orchis rotundifolia* Banks ex Pursh)

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; A.H. Reddoch (pers. comm.), Rouleau (unpublished maps).
RANGE	n-cAlas and cY to Mackenzie R. Delta, Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), nmost Man-Ont, Que, NB and wNfld, south to sBC, seAlta, Mont, Wyo, Minn, Wis and nNew England; wG (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; Humber East.
MAP	Catling 1983; Hulten 1968; Luer 1975; Porsild 1966a; Porsild & Cody 1980.
HABITAT	Turfy limestone barrens.
ECOREGION	IB, IVC, IX
STATUS	Rare in New Brunswick.
NFLD RARITY	S2

Androsace septentrionalis L.

SOURCES	CAN, GH; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack-K to nEllesmere Is. and nBaffin Is., south through BC-Alta-Sask-Man to Cal, Ariz, NMex and SDak, farther eastwards south to Ont, Que and wNfld; isolated station in wG; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe South (Tucker's Head, Portland Head).
MAP	Blondeau 1989; Fernald 1933; Hultén 1968, 1971; Hultén & Fries 1986; Meusel *et al.* 1978; Morisset 1979; Porsild 1964; Porsild & Cody 1980; Riley & McKay 1980; Wynne-Edwards 1937.
HABITAT	Limestone cliffs and talus.
ECOREGIONS	IB, IVA
NFLD RARITY	S1
NOTES	Known from only two localities where it was collected by M.L. Fernald, B. Long and J.M. Fogg in 1929 («excessively rare; only these plants seen») and by S.G. Hay and A. Bouchard in 1974 («single plant»).

Anemone canadensis L.

SOURCES	CAN, MT, NFLD; Rouleau (unpublished maps).
RANGE	swMack and BC-Alta to Sask, Man, Ont, Que, NB, PEI, NS and wNfld, south to NMex, Mo, Ohio and NJ (Scoggan 1978-79 emend.).
NFLD	St. Barbe South (Gros Morne National Park).
MAP	Hultén 1971; Porsild & Cody 1980.
HABITAT	Alluvial shores and swales.
ECOREGIONS	IB, IVA
STATUS	Rare in Northwest Territories, British Columbia, Nova Scotia.
NFLD RARITY	S1
NOTES	May have been introduced in certain localities.

Anemone multifida Poir.

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	ncAlas-Y-Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), Man, nmost Ont, Que, NB and Nfld, south to nCal, Nev, NMex, neNeb, Minn and Me; SAmerica (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Humber East, Port au Port; Green Bay; Grand Falls.
MAP	Boraiah & Heimburger 1964; Hultén 1968; Porsild & Cody 1980.
HABITAT	Limestone cliffs, talus and barrens.
ECOREGIONS	IA, IB, IC, IIA, III, IVA
NFLD RARITY	S2
NOTES	The record for the Avalon Peninsula (Boraiah & Heimburger 1964) could not be substantiated.

Anemone riparia Fern.

(Syn. *Anemone virginiana* L. var. *riparia* (Fern.) Boivin)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	BC-Alta, Sask, Man, Ont, Que, NB, NS and wNfld, south to Minn, Ill and New England (Scoggan 1978-79).
NFLD	St. George's (Harry's River and North Brook).
HABITAT	River banks.
ECOREGIONS	ID
STATUS	Rare in British Columbia, Nova Scotia.
NFLD RARITY	S1

Anemone virginiana var. **riparia** = **Anemone riparia**

Angelica laurentiana Fern.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	sLab-wNfld-seQue (Boivin 1966-67).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Hultén 1958.
HABITAT	Trap cliffs and talus; rocky meadows and brook-bottoms.
ECOREGIONS	IVA, VIIIC, IX
STATUS	Rare in Canada N1.
NFLD RARITY	SH
NOTES	Anse-aux-Sauvages is the type locality for this taxon (Fernald 1926). The taxonomic status of this endemic requires further study.

Antennaria albicans Fern.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	wNfld.
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port.
MAP	Porsild 1950, 1966b.
HABITAT	Dry gravelly limestone barrens.
ECOREGIONS	IC, IVA, IX
NFLD RARITY	SH
NOTES	Table Mountain (Port au Port) is the type locality (Fernald 1914c). R.J. Bayer (pers. comm.) includes this taxon in *A. rosea* Greene ssp. *confinis* (Greene) Bayer. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria alpina var. **cana = Antennaria cana**

Antennaria appendiculata = Antennaria howellii ssp. **petaloidea**

Antennaria bayardii Fern.

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	wNfld.
NFLD	St. Barbe North; St. Barbe South; Humber West; Humber East.
HABITAT	Limestone cliffs and talus.
ECOREGIONS	IB, IX
NFLD RARITY	S1
NOTES	Tucker's Head (Gros Morne Nat'l Park) is the type locality (Fernald 1933). R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria brunnescens Fern.

SOURCES	CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	wNfld.
NFLD	St. Barbe South (Killdevil).
HABITAT	Exposed limestone crest.
ECOREGIONS	IB
NFLD RARITY	S1
NOTES	Killdevil (Gros Morne Nat'l Park) is the type locality (Fernald 1933). R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria cana (Fern. & Wieg.) Fern.
(Syn. *Antennaria longii* Fern., *Antennaria alpina* (L.) Gaertn. var. *cana* Fern. & Wieg.)

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	wNfld.
NFLD	St. Barbe North; St. Barbe South.
HABITAT	Dry gravelly limestone barrens and crests.
ECOREGIONS	IA, IVA, IX
NFLD RARITY	S2
NOTES	Pointe Riche is the type locality of *A. cana* (Fernald & Wiegand 1911), and Schooner Island (St. Barbe North) that of *A. longii* (Fernald 1926). R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria columnaris Fern.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	nwNfld.
NFLD	St. Barbe South (Pointe Riche).
HABITAT	Turfy limestone barrens.
ECOREGIONS	IX
NFLD RARITY	S1
NOTES	Gargamelle Cove is the type locality (Fernald 1933). R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria foggii Fern.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	nwNfld.
NFLD	St. Barbe North; St. Barbe South.
HABITAT	Gravelly and turfy limestone barrens.
ECOREGIONS	IX
NFLD RARITY	S2
NOTES	Old Port au Choix is the type locality (Fernald 1933). R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria gaspensis Fern.
(Syn. *Antennaria neglecta* Greene var.*gaspensis* Fern., *A. neodioica* Greene var. *gaspensis* Fern., *A. rosea* Greene ssp. *pulvinata* (Greene) Bayer)

SOURCES	CAN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	eQue and wNfld.
NFLD	St. Barbe South; Humber West; Humber East; Port au Port.
MAP	Morisset 1979; Porsild 1950.
HABITAT	Cliffs, talus, and barrens on limestone.
ECOREGIONS	IB, IC, IVA, IX
NFLD RARITY	S2
NOTES	Bayer (1989a) has recently merged *A. gaspensis* in *A. rosea* , a diverse, polyploid agamic complex widely distributed from nMex to Alas, with disjunct populations in the Gulf of St. Lawrence. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria howellii Greene ssp. **petaloidea** (Fern.) Bayer
(Syn. *Antennaria petaloidea* Fern., *Antennaria appendiculata* Fern.)

SOURCES	CAN, DAO, GH, MT, NFLD; Bayer 1989b, Rouleau (unpublished maps).
RANGE	Ont-Que-NB-NS-Nfld; south to Wisc-Mich-NY-New England and mts of Pa, WVa.
NFLD	White Bay North; Humber West; Humber East; Green Bay; Grand Falls; Twillingate; Gander; Bonavista South.
MAP	Fernald 1933.
HABITAT	Sandy and rocky banks of rivers; dry rocky barrens.
ECOREGIONS	IB, IIA, III, IX
Nfld rarity	S2

Antennaria longii = Antennaria cana

Antennaria neglecta var. **gaspensis = Antennaria gaspensis**

Antennaria neodioica var. **gaspensis = Antennaria gaspensis**

Antennaria petaloidea = Antennaria howellii ssp. **petaloidea**

Antennaria rosea ssp. **pulvinata = Antennaria gaspensis**

Antennaria straminea Fern.

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	seQue, Nfld (Boivin 1966-67).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port; Twillingate.
HABITAT	Dry gravelly limestone and exposed basic rock barrens.
ECOREGIONS	IA, IB, IC, III, IVA, IX
STATUS	Rare in Quebec.
NFLD RARITY	S2
NOTES	Twillingate is the type locality (Fernald 1914a). R.J. Bayer (pers. comm.) includes this taxon in *A. rosea* Greene ssp. *confinis* (Greene) Bayer. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria vexillifera Fern.

Sources	CAN, CDFN, GH, MT; Rouleau (unpublished maps).
Range	seQue, nwNfld (Boivin 1966-67).
Nfld	White Bay North; St. Barbe North; St. Barbe South.
Map	Hultén & Fries 1986; Porsild 1966b.
Habitat	Gravelly and turfy limestone barrens.
Ecoregions	IX
Nfld rarity	S1
Notes	R.J. Bayer (pers. comm.) includes this taxon in *A. alpina* s.lat. A biosystematic study of the eastern *Antennaria* is needed.

Antennaria wiegandii Fern.

Sources	CAN, GH; Rouleau (unpublished maps).
Range	wNfld.
Nfld	St. Barbe North; St. Barbe South; Humber West.
Habitat	Gravelly limestone barrens, cliffs and ledges
Ecoregions	IA, IX
Nfld rarity	SH
Notes	St. John Island is the type locality (Fernald 1926). R.J. Bayer (pers. comm.) includes this taxon in *A. howellii* Greene ssp. *canadensis* (Greene) Bayer. A biosystematic study of the eastern *Antennaria* is needed.

Apocynum cannabinum L. var. **hypericifolium** A. Gray
(Syn. *Apocynum sibiricum* Jacq.)

Sources	CAN, CDFN, DAO, GH, MT, NFLD; Boivin 1966, Rouleau (unpublished maps).
Range	swMack and BC-Alta to Sask, Man, Ont, Que, NB, NS, and Nfld; south to Cal, Tex and Fla (Scoggan 1978-79).
Nfld	Humber West; Port au Port; St. George's; Grand Falls; Gander.
Map	Porsild & Cody 1980; Woodson 1930.
Habitat	Sandy or gravelly shores.
Ecoregions	IB, IC, ID, IE, IIA
Status	Rare in Northwest Territories, British Columbia.
Nfld rarity	S2

Apocynum sibiricum = Apocynum cannabinum var. **hypericifolium**

Arabis drummondii A. Gray

Sources	CAN, DAO, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	sAlas, cY and Mackenzie R. Delta to Great Bear L., Great Slave L., nAlta, Sask, Man, Ont, Que, NB, NS, Nfld and Lab, south to Cal, Colo, Iowa, Ohio and Del (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe North; St. Barbe South; Grand Falls.
Map	Fassett 1941; Hopkins 1937; Hultén 1968; Porsild 1966a; Porsild & Cody 1980; Raup 1947; Sabourin 1989.
Habitat	Limestone crests, cliffs and talus.
Ecoregions	IB, IIA, IVA, IX
Status	Rare in Quebec, Nova Scotia.
Nfld rarity	S1

Arceuthobium pusillum Peck

Sources	CAN, DAO, GH, MT, NLFD; Rouleau (unpublished maps).
Range	eSask-Man, Ont, Que, NB, PEI, NS and Nfld, south to Minn, Mich, nPa and New England (Scoggan 1978-79).
Nfld	St. Barbe South; Humber West; Humber East; Port au Port; St. George's; Grand Falls.
Map	Dore (ined., DAO); Rousseau 1974 (Que).
Habitat	Parasitic on *Picea mariana* .
Ecoregions	IA, IB, IC, ID, IE, IIA, IVA
Status	Rare in Saskatchewan.
Nfld rarity	S2
Notes	An easily overlooked species that may be undercollected.

Arctostaphylos alpina ssp. **rubra = Arctostaphylos rubra**

Arctostaphylos rubra (Rehd. & Wils.) Fern (Syn. *Arctostaphylos alpina* (L.) Spreng. ssp. *rubra* (Rehd. & Wils.) Hult.)

Sources	CAN, CDFN, DAO, GH, MT; Rouleau (unpublished maps), Ryan 1978.
Range	Alas-NWT, BC-nSask, Man-Que, nwNfld; eAsia.
Nfld	White Bay North; St. Barbe North.
Map	Hultén 1968; 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947.
Habitat	Turfy limestone barrens.
Ecoregions	IX
Status	Rare in Saskatchewan, Quebec.
Nfld rarity	S2
Notes	Discovered in 1847 by Beautemps and Beaupré at Nouveau-Ferrolle.

Arenaria dawsonensis = Minuartia dawsonensis

Arenaria laricifolia var. **marcescens = Minuartia marcescens**

Arenaria marcescens = Minuartia marcescens

Arenaria stricta ssp. **dawsonensis = Minuartia dawsonensis**

Arnica alpina ssp. **angustifolia = Arnica angustifolia** ssp. **angustifolia**

Arnica alpina ssp. **tomentosa = Arnica angustifolia** ssp. **tomentosa**

Arnica angustifolia M. Vahl ssp. **angustifolia**
(Syn. *Arnica alpina* (L.) Olin ssp.*angustifolia* (M. Vahl) Maguire, *Arnica plantaginea* Pursh, *Arnica terrae-novae* Fern.)

Sources	CAN, GH, MT; Rouleau (unpublished maps).
Range	Alas eastward through the northern regions of Man, Ont and Que, with isolated populations in nwNfld; G; Eurasia (Downie 1987).
Nfld	White Bay North; St. Barbe North; St. Barbe South; Port au Port.
Map	Downie 1988; Downie & Denford 1988; Fernald 1933; Hultén & Fries 1986; Maguire 1943.
Habitat	Turfy limestone barrens.
Ecoregions	IC, IX
Status	Rare in Alberta, Saskatchewan, Quebec.
Nfld rarity	S2
Notes	Cape St. George is the type locality of *A. terrae-novae* (Fernald 1925b).

Arnica angustifolia M. Vahl ssp. **tomentosa** (Macoun) Dougl. & Ruyle-Dougl (Syn. *Arnica tomentosa* Macoun, *A. alpina* (L.) Olin ssp. *tomentosa* (Macoun) Maguire, *Arnica pulchella* Fern.)

Sources	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	Mack south to Rocky Mts of Alta, BC and Mont; disjunct populations in nwNfld (Downie 1987).
Nfld	St. Barbe South; Port au Port.
Map	Downie 1988; Downie & Denford 1988; Hultén 1958, 1968; Hultén & Fries 1986; Maguire 1943.
Habitat	Turfy limestone barrens.
Ecoregions	IC, IVA, IX
Status	Rare in Yukon.
Nfld rarity	S1
Notes	Table Mountain (Port au Port) is the type locality of *A. pulchella* (Fernald 1915a).

Arnica frigida ssp. **griscomii = Arnica griscomii** ssp. **griscomii**

Arnica griscomii Fern. ssp. **griscomii**
(Syn. *Arnica frigida* Fern. ssp. *griscomii* (Fern.) S.R. Downie, *A. louiseana* Fern. ssp. *griscomii* (Fern.) Maguire)

Sources	CAN, DAO, GH, MT; Downie 1987, Rouleau (unpublished maps), Wolf 1989.
Range	eQue and nwNfld (Scoggan 1978-79).
Nfld	St. Barbe North; St. Barbe South.
Map	Downie 1986; Downie & Denford 1986a, 1986b, 1988; Fernald 1933; Maguire 1943; Porsild 1966a.
Habitat	Turfy limestone barrens, cliffs and ledges.
Ecoregions	IVA, IX
Status	Rare in Canada N?T2. Rare in Quebec.
Nfld rarity	S1

Arnica louiseana ssp. **griscomii = Arnica griscomii** ssp. **griscomii**

Arnica plantaginea = Arnica angustifolia ssp. **angustifolia**

Arnica pulchella = Arnica angustifolia ssp. **tomentosa**

Arnica terrae-novae = Arnica angustifolia ssp. **angustifolia**

Arnica tomentosa = Arnica angustifolia ssp. **tomentosa**

Asplenium trichomanes L.

SOURCES	DAO, MT; Cody 1968, Rouleau (unpublished maps).
RANGE	seAlas, BC, Alta-Ont, Que, NB, NS, wNfld, south to Ore, Ariz, Colo, NDak, Wis , Tex, Ala, Ga; Iceland; Eurasia (Scoggan 1978-79).
NFLD	Humber West (North Arm and Serpentine Lake).
MAP	Cody & Britton 1989; Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Moran 1982.
HABITAT	Limestone and serpentine talus slopes: fissures and ledges of boulders.
ECOREGIONS	IA, IB
STATUS	Rare in Nova Scotia, New Brunswick.
NFLD RARITY	S1
NOTES	Known from only two localities. First collected by E. Rouleau in 1965. Relocated in 1987.

Aster acuminatus Michx.

SOURCES	GH; Rouleau (unpublished maps).
RANGE	eOnt-Que, NB, PEI, NS and sNfld; south to New England-NY-Pa and through mts to eTenn and nGa (Brouillet & Simon 1981).
NFLD	Humber West (Lark Mountain); Burgeo and La Poile (Port aux Basques).
MAP	Brouillet & Simon 1981; Dansereau 1957; Pike 1970.
HABITAT	Coniferous thickets and woods.
ECOREGIONS	IA, VIC
NFLD RARITY	SH
NOTES	Known from only two localities. Collected by M.L. Fernald, B. Long and J.M. Fogg in 1926, and by M.L. Fernald, B. Long and B. Dunbar in 1924; not relocated since.

Aster ciliolatus Lindl. ex Hook.
(Syn. *Aster foliaceus* Lindl. var. *subgeminatus* Fern.)

SOURCES	GH, NY; Hay *et al.* 1990.
RANGE	seY-Mack, BC-wNfld; Mont-Wyo-Minn-New England .
NFLD	Port au Port (Table Mountain).
MAP	Avers 1953; Brouillet 1981; Porsild 1958; Porsild & Cody 1980; Porsild & Crum 1961.
HABITAT	Damp bushy ravine in limestone tablelands.
ECOREGIONS	IC
STATUS	Rare in Yukon.
NFLD RARITY	SH
NOTES	Added recently to the flora (Hay *et al.* 1990) on the basis of Fernald's collection of *A. foliaceus* var. *subgeminatus* . Table Mountain is the type locality of the latter taxon (Fernald 1915a). Known from only one locality, where it was collected by M.L. Fernald, K.M. Wiegand and J. Kittredge in 1910; not relocated since.

Aster foliaceus var. **subgeminatus = Aster ciliolatus**

Aster lanceolatus Willd. ssp. **lanceolatus**
(Syn. *Aster simplex* Willd.)

SOURCES	CAN, MT, NFLD; Rouleau (unpublished maps).
RANGE	sMan-Ont-sQue-NB-NS, wNfld; southwards from Mo-nGa-Va.
NFLD	Humber West; Burgeo and La Poile.
MAP	Brousseau 1986 (eN. Am.); Semple & Chmielewski 1987; Semple *et al.* 1983.
HABITAT	Alder swamps.
ECOREGIONS	IB, VIC
NFLD RARITY	S1
NOTES	First collected by E. Rouleau in 1951; relocated in 1987 and 1989. Some colonies appear to be adventive.

Aster simplex = Aster lanceolatus ssp. **lanceolatus**

Astragalus alpinus L. var. **alpinus**

SOURCES	CAN, GH, MT; Barneby 1964.
RANGE	Aleutian Is., Alas-Y-Mack-K, Canadian Arctic Archipelago to sBaffin Is., nmost Ungava-Lab and extreme nwNfld; south in West through mts of BC and wAlta to Nev, Colo, SDak, NMex; eastwards to L. Athabasca (Alta, Sask), Man, James Bay (Ont, Que), nWis; G; Eurasia (Barneby 1964).
NFLD	White Bay North (Burnt Cape, Quirpon Island).
MAP	Barneby 1964; Hultén 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947; Rousseau 1933.
HABITAT	Dry limestone barrens or Empetrum heath on headlands.
ECOREGIONS	IX
NFLD RARITY	S1
NOTES	Known from only two localities. Discovered by M.L. Fernald, K.M. Wiegand, A.S. Pease, B. Long, L. Griscom, F.A. Gilbert and N. Hotchkiss in 1925. Populations were relocated in 1987.

Astragalus alpinus L. var. **brunetianus** Fern.

(Syn. *Astragalus brunetianus* (Fern.) Rousseau, *Astragalus labradoricus* DC.)

SOURCES	CAN, DAO, GH, MT, NFLD; Barneby 1964.
RANGE	Que, NB and Nfld; Me, NH and Vt (Barneby 1964).
NFLD	St. Barbe South; Humber East; White Bay South; Grand Falls; Gander.
MAP	Barneby 1964; Hultén 1968, 1971; Porsild 1964; Porsild & Cody 1980; Raup 1947; Rousseau 1933.
HABITAT	Rocky and gravelly shores of rivers; sea cliffs.
ECOREGIONS	IA, IB, IIA, IVD
NFLD RARITY	S2

Astragalus bodinii Sheldon

(Syn. *Astragalus stragulus* Fern.)

SOURCES	CAN, GH, MT; Barneby 1964, Rouleau (unpublished maps).
RANGE	Two main areas: 1. cAlas, s-cY and Mackenzie R. Delta to Great Slave L. and nAlta. 2. Wyo, Utah, Colo and wNeb, with isolated stations in ecSask, cMan and nwNfld (Scoggan 1978-79 em.).
NFLD	St. Barbe North (Cook's Harbour).
MAP	Barneby 1964; Hultén 1968.
HABITAT	Exposed turfy upper seashore of limestone headlands.
ECOREGIONS	IX
STATUS	Rare in Saskatchewan, Manitoba.
NFLD RARITY	S1
NOTES	Cook's Harbour is the type locality of *A. stragulus* (Fernald 1926). Only known from one locality where it was collected by M.L. Fernald, F.A. Gilbert and N. Hotchkiss. Relocated in 1987.

Astragalus brunetianus = Astragalus alpinus var. **brunetianus**

Astragalus eucosmus B.L.Robins.

(Syn. *A. eucosmus* var. *terrae-novae* Rousseau)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack to sBaffin Is. and nmost Ungava-Lab, south in the West through nBC and Alta to nUtah and Colo, farther eastwards south to Sask, nMan, nOnt, Que, NB, wNfld and nMe (Scoggan 1978-79 emend.).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West; Humber East; Green Bay; Grand Falls; Gander.
MAP	Barneby 1964; Hultén 1968, 1971; Porsild 1964; Porsild & Cody 1980; Rousseau 1933.
HABITAT	Gravelly shores of rivers; calcareous cliffs, talus and turfy barrens.
ECOREGIONS	IB, IIA, IVA, IX
NFLD RARITY	S2
NOTES	First collected by Sir Joseph Banks during his 1766 expedition. Pistolet Bay is the type locality of var.*terrae-novae* (Rousseau 1933).

Astragalus eucosmus var. **terrae-novae = Astragalus eucosmus**

Astragalus labradoricus = Astragalus alpinus var. **brunetianus**

Astragalus robbinsii (Oakes) A. Gray var. **fernaldii** (Rydb.) Barneby
(Syn. *Astralagus fernaldii* (Rydb.) H.F.Lewis, *Astralagus eucosmus* B.L.Robins. var. *fernaldii* (Rydb.) Boivin)

SOURCES	CAN, DAO, GH, MT; Barneby 1964, Rouleau (unpublished maps).
RANGE	eQue, wNfld, sLab (Scoggan 1978-79).
NFLD	St. Barbe North (Barr'd Harbour Hill, Cooks Harbour); St. Barbe South (St. Paul's Inlet).
MAP	Barneby 1964, Rousseau 1933.
HABITAT	Calcareous cliffs and talus; river gravels.
ECOREGIONS	IVA, IX
STATUS	Rare in Canada N?T1. Rare in Quebec.
NFLD RARITY	S1
NOTES	This endemic variety is known from only a few localities on both sides of the strait of Belle-Isle. The St. Paul's Inlet collection has been recently revised by R.C. Barneby (pers. comm.) to the closely related Cordilleran var. *minor* (Hook.) Barneby, which is disjunct to the east in New England and Nova Scotia, but which has never been reported in Newfoundland (Barneby 1964). The *A. robbinsii* complex is confusing, and it seems preferable to leave this controversial specimen as var. *fernaldii* pending further collections.

Astragalus stragulus = Astragalus bodinii

Astralagus eucosmus var. **fernaldii = Astragalus robbinsii** var. **fernaldii**

Astralagus fernaldii = Astragalus robbinsii var. **fernaldii**

Athyrium alpestre (Hoppe) Rylands ex T. Moore ssp. **americanum** (Butters) Lellinger
(Syn. *Athyrium distentifolium* Tausch ex Opiz var. *americanum* (Butters) Boivin)

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, Fernald 1928a, Roulcau (unpublished maps).
RANGE	sAlas through BC and swAlta to Cal, Nev and Colo; disjunct in eQue, wNfld, Lab (Lellinger 1985, Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South.
MAP	Cody & Britton 1989; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965.
HABITAT	Wet mossy slopes on quartzite; late snowbeds.
ECOREGIONS	VIIIC
STATUS	Rare in Alberta, Quebec.
NFLD RARITY	S2
NOTES	Cordilleran disjunct in eastern Canada. Such alpine species may be undercollected in the Long Range Mountains.

Athyrium distentifolium var. **americanum = Athyrium alpestre** ssp. **americanum**

Atriplex praecox Hülphers

SOURCES	P.M. Taschereau (pers. comm. & herb.), Hay *et al.* 1990.
RANGE	NS-Nfld; G; Iceland, nEurope.
NFLD	St. Barbe North; St. Barbe South; Port de Grave; Fortune Bay.
MAP	Bassett *et al.* 1983; Thannheiser 1981, 1984.
HABITAT	Coastal sandy beaches.
ECOREGIONS	IVA, VIA, VIB, IX
STATUS	Rare in Canada N1.
NFLD RARITY	S1
NOTES	C.W. Crompton (pers. comm.) suggests that *A. praecox* may be a genuine amphi-Atlantic taxon, or it might form part of a diploid-polyploid group which in the final analysis may prove to be circumpolar or holarctic in scope.

Bartsia alpina L.

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Man to Ont, Que, sBaffin Is., the coast of Lab, and nwNfld; G; Iceland; Europe; Asia Minor (Scoggan 1978-79).
NFLD	St. Barbe North.
MAP	Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild 1964; Porsild & Cody 1980.
HABITAT	Turfy and peaty limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Manitoba.
NFLD RARITY	S1
NOTES	First collected in 1885 by Bartlett and Budlingham on the Arethusa Expedition of Harvard University .

Botrychium lanceolatum (S.G. Gmel.) Angstr. var. **angustisegmentum** Pease & Moore

SOURCES	GH, MT; Lellinger 1985, Rouleau (unpublished maps).
RANGE	Ont to Nfld, south to Va, WVa, Ohio, Mich, Wis and Minn; disjunct in NC (Lellinger 1985).
NFLD	White Bay North; Humber West; St. George's.
MAP	Clausen 1938; Cody & Britton 1989; Dickson, Britton & White 1983; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1966a; Porsild & Cody 1980.
HABITAT	Turfy meadow slopes.
ECOREGIONS	IB, VIIIA, IX
STATUS	Rare in Ontario, Quebec, Nova Scotia.
NFLD RARITY	SH
NOTES	Not observed since 1939.

Botrychium lanceolatum (Gmel.) Ångstr. var. **lanceolatum**

SOURCES	GH; Cody & Britton 1989.
RANGE	Alas-Y, BC-swAlta, swSask; disjunct eastwards in Lab, nNfld and nMe; Wyo, Colo; G; Eurasia.
NFLD	White Bay North (Sacred Bay, Ship Cove).
MAP	Cody & Britton 1989; Hultén 1958, 1968; Meusel *et al.* 1965; Porsild 1966a; Porsild & Cody 1980.
HABITAT	Dryish meadow-slopes.
ECOREGIONS	IX
STATUS	Rare in Yukon, British Columbia, Alberta, Saskatchewan.
NFLD RARITY	SH
NOTES	Cordilleran disjunct in eastern Canada. Known from only one locality where it was collected by M.L. Fernald, K.M. Wiegand and B. Long in1925. It has not been relocated since.

Botrychium simplex E. Hitchc.

SOURCES	CAN, GH, MT, OAC; Rouleau (unpublished maps).
RANGE	sBC-Sask, south to Cal, NMex and Colo; Ont-Que, NB, NS and Nfld, south to sCal, NMex, Ind, Pa and Md; swG; Iceland; Europe; eAsia (Scoggan 1978-79).
NFLD	Humber West; St. George's; Green Bay; Grand Falls; Twillingate.
MAP	Clausen 1938; Cody & Britton 1989; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965.
HABITAT	Turfy slopes, rocky crests and ledges.
ECOREGIONS	IB, IE, IIA, III
STATUS	Rare in British Columbia, Alberta, Nova Scotia.
NFLD RARITY	S2

Brasenia schreberi S.G. Gmel.

SOURCES	CAN, MT; Hay *et al.* 1990.
RANGE	Alas, BC, seMan, Ont-Que-NB-NS, wNfld; Wash-Cal-Ida, SD-Tex-Fla-Me; isolated stations in Cuba; Central America; Europe (fossil); Asia; seAfrica; Australia (Fleurbec 1987, Raymond & Dansereau 1953).
NFLD	St. Barbe South (Gros Morne National Park).
MAP	Fleurbec 1987; Hultén 1968, 1971; Hultén & Fries 1986; Tralau 1959.
HABITAT	Oligotrophic ponds and deadwaters.
ECOREGIONS	IVA
STATUS	Rare in Manitoba.
NFLD RARITY	S1
NOTES	Known from only one locality. Collected by A. Bouchard and S.G. Hay in 1989 (Hay *et al.* 1990).

Braya americana = Braya fernaldii

Braya fernaldii Abbe
(Syn. *Braya purpurascens* (R.Br.) Bunge ex Ledeb. var. *fernaldii* (Abbe) Boivin, *Braya americana* (Hook.) Fern., in part)

SOURCES	CAN, DAO, GH, MT, NFLD; Harris 1985, Rouleau (unpublished maps).
RANGE	nwNlfd (Boivin 1966-67, Harris 1985).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Fernald 1925a; Harris 1985; Hultén 1968; Sabourin 1989.
HABITAT	Gravelly limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Canada N2.
NFLD RARITY	S2
NOTES	Cape Norman is the type locality of this endemic (Abbe 1948).

Braya humilis var. **abbei = Braya humilis** var. **humilis**

Braya humilis (C.A.Meyer) B.L. Robins. var. **humilis**
(Syn. *B.humilis* (C.A. Meyer) B.L.Robins. var. *abbei* (Böch.) Boivin, *B. novae-angliae* (Rydb.) Th. Sørens. ssp. *abbei* Böch., *B. humilis* (C.A. Meyer) B.L.Robins. var. *laurentiana* (Böch.) Boivin)

SOURCES	CAN, GH, MT; Harris 1985, Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-sBanks Is. and Victoria Is., in the West south through mts of BC and swAlta-Colo; eastwards south to Great Slave L., nMan, Ont, nMich, eQue, wNfld and mts of nVt; G; Asia (Harris 1985, Scoggan 1978-79).
NFLD	Port au Port (Table Mountain).
MAP	Böcher 1950, 1966; Harris 1985; Hultén 1968, 1971; Porsild 1966a; Porsild & Cody 1980; Sabourin 1989.
HABITAT	Dry exposed ledges and shingle on limestone tableland.
ECOREGIONS	IC
STATUS	Rare in Manitoba, Quebec (var. *laurentiana*).
NFLD RARITY	S1
NOTES	Known from only one locality where it was discovered by M.L. Fernald and H. St.John in 1914. Relocated in 1986.

Braya humilis var. **laurentiana = Braya humilis** var. **humilis**

Braya longii Fern.
(Syn. *Braya purpurascens* (R.Br.) Bunge ex Ledeb. var. *longii* (Fern.) Boivin)

SOURCES	CAN, DAO, GH; Harris 1985, Rouleau (unpublished maps).
RANGE	nwNfld (Boivin 1966-67, Harris 1985).
NFLD	St. Barbe North.
MAP	Fernald 1925a; Harris 1985; Sabourin 1989.
HABITAT	Gravelly and peaty limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Canada N1.
NFLD RARITY	S1
NOTES	Known from only three adjacent localities. Populations were relocated by J.G. Harris in 1981-83. Poverty Cove is the type locality of this endemic species (Fernald 1926).

Braya novae-angliae ssp. **abbei = Braya humilis** var. **humilis**

Braya purpurascens var. **fernaldii = Braya fernaldii**

Braya purpurascens var. **longii = Braya longii**

Calamagrostis purpurascens R. Br.

SOURCES MT; Dore & McNeill 1980, Greene 1980, Rouleau (unpublished maps).

RANGE Alas, Mack-Banks Is., Victoria Is., Baffin Is., Ellesmere Is., south to Cal, Colo, SDak; L. Athabasca (Alta and Sask) and nMan; disjunct eastward in L. Superior (Ont and Minn), Que, wNfld; G; neAsia (Scoggan 1978-79 emend).

NFLD Humber West (Penguin arm).

MAP Böcher 1954; Greene 1980; Hultén 1968; Kawano 1965; Meusel *et al.* 1965; Morisset 1979; Porsild 1964; Porsild & Cody 1980; Raup 1947; Riley & Reznicek 1984.

HABITAT Dry limestone walls at summit of talus.

ECOREGIONS IA

STATUS Rare in Yukon (var. *maltei* Polunin), Saskatchewan, Ontario, Quebec.

NFLD RARITY SH

NOTES Populations strongly disjunct in eastern Canada. Known from only one locality in Newfoundland. Collected by E. Rouleau in 1950, it has not been relocated since.

Calla palustris L.

SOURCES CAN, CDFN, GH, MT, NFLD; Rouleau (unpublished maps).

RANGE n-cAlas and s-cY to Mackenzie R. Delta, Great Slave L., Sask, Man, Ont, Que, NB, PEI, NS, sLab and Nfld, south to Colo, Tex and Fla; Eurasia (Scoggan 1978-79).

NFLD St. Barbe North; St. George's; Grand Falls.

MAP Fleurbec 1987; Hultén 1962, 1968; Hultén & Fries 1986; Lepage 1966; Meusel *et al.* 1965; Porsild & Cody 1980.

HABITAT Wet depressions in alder swales; pools in bogs.

ECOREGIONS ID, IIA, IVB

NFLD RARITY S1

Callitriche hermaphroditica L.

SOURCES CAN, GH, MT, NASC; C.T. Philbrick (pers. comm.), Rouleau (unpublished maps).

RANGE Aleutian Is. and Alas to s/cY, Mackenzie R. Delta, Great Bear L., nAlta, Sask, Man, Ont, Que, NB, s?Lab, wNfld and south to cCal, Colo, nNeb, Minn, Wis, Mich, NY and Vt; Disko Is., wG; Iceland; Eurasia (Scoggan 1978-79).

NFLD St. Barbe North; St. Barbe South; Humber East.

MAP Fassett 1951; Fernald 1925a; Hultén 1968; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild & Cody 1980.

HABITAT Quiet waters of pools and ponds.

ECOREGIONS IB, IX

NFLD RARITY S1

NOTES Such aquatic species may be undercollected.

Calypso bulbosa (L.) Oakes var. **americana** (R.Br.) Luer

SOURCES GH, MT; Luer 1975, Rouleau (unpublished maps).

RANGE cAlas-Y to Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), Man, Ont, Que, NB and Nfld, south to Cal, Ariz, Colo, Minn, Mich and nNew England (Luer 1975, Scoggan 1978-79).

NFLD White Bay North; St. Barbe North; St. Barbe South.

MAP Hultén 1962, 1968; Luer 1975; Porsild & Cody 1980.

HABITAT Mossy glades in spruce woods.

ECOREGIONS IVA, IX

STATUS Rare in Saskatchewan.

NFLD RARITY SH

NOTES Last collected by M.L. Fernald, B. Long and J.M. Fogg in 1929 and recorded as very scarce or extremely rare on herbarium labels. We have been unable to confirm the report from Terra Nova National Park.

Cardamine pratensis L. ssp. **angustifolia** (Hook.) O.E. Schulz

SOURCES	CAN, GH, MT.
RANGE	Coasts of Alas-Y-Mack-K to nmost Ellesmere Is. and nmost Ungava-Lab, south to sAlas-Y-Mack, L. Athabasca, nMan, nOnt, James Bay, nQue, nwNfld and sLab; G; Iceland; Spitsbergen; Eurasia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Hultén 1971; Hultén & Fries 1986; Lovkvist 1956; Meusel 1943; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Sedge marshes and damp depressions on limestone.
ECOREGIONS	IVA, IVC, IX
NFLD RARITY	S2
NOTES	The Eurasian ssp. *pratensis* has been introduced in southern and eastern Newfoundland. The var. *palustris* Wimm. & Grab. is rare in Alberta and Nova Scotia.

Carex abdita Bickn.

(Syn. *Carex umbellata* sensu Mack., non Schk. ex Willd.)

SOURCES	CAN, GH, MT, CDFN; Robertson 1984, Rouleau (unpublished maps).
RANGE	Sask to sLab and Nfld, south to New England, Va, Tenn, Ill and Minn (Fernald 1950).
NFLD	White Bay South; Grand Falls; Twillingate; Harbour Main; Ferryland.
MAP	Robertson 1984.
HABITAT	Exposed, barren siliceous summits; gravelly terraces along rivers.
ECOREGIONS	IIA, III, VIA, VIB
NFLD RARITY	S2

Carex arcta Boott

SOURCES	GH, MT; P.W. Ball (pers. comm.), Hay *et al.* 1990.
RANGE	sAlas-Y and nAlta to Sask, Man, Ont, Que, NB, wNfld, Lab, south to Cal, Ida, Minn, Mich and New England (Scoggan 1978-79 emend.).
NFLD	St. Barbe South (Doctor Hill).
MAP	Hultén 1968; Porsild & Cody 1980; Raup 1930 .
HABITAT	Subalpine meadows.
ECOREGIONS	VIIIC
STATUS	Rare in Yukon, Northwest Territories, Saskatchewan, Manitoba.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by M.L. Fernald, B. Long and J.M. Fogg in 1929; it has not been relocated since.

Carex arctogena = Carex capitata

Carex bicolor Bellardi ex All.

SOURCES	CAN, GH, MT, NFLD; Robertson 1984, Rouleau (unpublished maps).
RANGE	nAlas, cY and the coast of Mack to sBaffin Is., and nQue, south to seAlas, Great Bear L., nSask, sK, nMan and Belcher Is. in James Bay, with isolated stations in mts of swAlta and nwNfld; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Robertson 1984.
HABITAT	Peaty depressions on limestone barrens.
ECOREGIONS	IVA, IX
STATUS	Rare in Northwest Territories, British Columbia, Saskatchewan, Manitoba.
NFLD RARITY	S2

Carex bipartita = Carex lachenalii

Carex capitata L.
(Syn. *Carex arctogena* H. Sm.)

SOURCES	CAN, CDFN, GH; Robertson 1984, Rouleau (unpubl. maps).
RANGE	Transcontinental; Alas-Y-Mack-K-BC-Alta to Sask, Man, sBaffin Is., nOnt, Que, Lab and nwNfld, south to Cal, nMexico, Utah and ?Colo and mts of NH; SAmerica; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North (Big Brook, Eddies Cove, Schooner Island).
MAP	Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Moore & Chater 1971; Porsild 1964; Porsild & Cody 1980; Raymond 1950a, 1951a; Robertson 1984; Rousseau 1931.
HABITAT	Peaty margins of pools in limestone barrens.
ECOREGIONS	IX
NFLD RARITY	S1
NOTES	Both the typical variety and var. *arctogena* (H. Sm.) Hult. have been reported in Newfoundland, but the distinction between the two is tenuous. Raymond (1949) reduced the latter to a form. Previously known only from collections by M.L. Fernald, L. Griscom, B. Long and A.S. Pease, made in 1925; found by W.J. Meades near Eddies Cove in 1979.

Carex chordorrhiza L.f.

SOURCES	CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack to sVictoria Is., sBaffin Is., Que, NB, PEI, SPM, Nfld, south to BC, Alta, Sask, Man, nIowa, Ind and Vt; Iceland; Eurasia (Scoggan 1978-79 emend.).
NFLD	St. Barbe North; St. Barbe South, White Bay North.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Page & Riley 1985; Porsild 1964; Porsild & Cody 1980; Robertson 1984.
HABITAT	Sedge marshes along the coast.
ECOREGIONS	IVA, IX
STATUS	Rare in Yukon.
NFLD RARITY	S2

Carex concinna R. Br.

SOURCES	CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	n-cAlas and sY to Mackenzie R. Delta, Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), Man, nmostOnt, Que, NB, sLab, Nfld, south to BC, Ore, Colo, Wyo, SDak, Mich and sOnt (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port.
MAP	Hultén 1968; Porsild & Cody 1980; Raup 1947; Robertson 1984.
HABITAT	Shaded limestone ledges and escarpments; limestone barrens.
ECOREGIONS	IC, IVC, IX
STATUS	Rare in New Brunswick.
NFLD RARITY	S2

Carex conoidea Schk. ex Willd.
(Incl. *Carex katahdinensis* Fern.)

SOURCES	CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	Minn to Ont, Que, NB, NS, SPM, Nfld, south to Iowa, Ohio and NC (Scoggan 1978-79).
NFLD	Grand Falls; Gander; Placentia East; Burin; Fortune Bay.
MAP	Ball & White 1982a; Raymond 1951a; Robertson 1984.
HABITAT	Rocky shores of rivers; moist grassy coastal meadows or slopes.
ECOREGIONS	IIA, VIB, VIC
STATUS	Rare in Ontario.
NFLD RARITY	S1
NOTES	Some Newfoundland collections have been referred to forma *katahdinensis* (Fern.) Boivin, but the distinction is tenuous.

Carex crawei Dewey

SOURCES	MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	seBC-sAlta, Sask, Man, Ont, Que, NB, NS, wNfld, south to Wash, Utah, Wyo, Kan, Mo and nAla (Scoggan 1978-79).
NFLD	St. Barbe South (Old Port au Choix).
MAP	Dutilly *et al.* 1954; Raymond 1951a, 1953b; Robertson 1984.
HABITAT	Wet clayey soil in limestone barrens, close to a small brook.
ECOREGIONS	IX
STATUS	Rare in British Columbia, Alberta, New Brunswick.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by R. Tuomikoski, in 1949; it has not been relocated since.

Carex cryptolepis Mack.

(Syn. *Carex flava* L. var. *fertilis* auct., non Peck)

SOURCES	CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	Ont, Que, NB, NS, cNfld, south to Minn, Wis, nInd to NJ and New England (Crins 1985, Crins & Ball 1989).
NFLD	Green Bay; Grand Falls; Gander.
MAP	Crins 1985; Crins & Ball 1989; Hultén 1958; Meusel *et al.* 1965.
HABITAT	Sandy-gravelly shores of lakes and brooks.
ECOREGIONS	IIA
NFLD RARITY	S1

Carex flava var. **fertilis = Carex cryptolepis**

Carex franklinii var. **misandroides = Carex petricosa** var. **misandroides**

Carex glacialis Mack.

(Syn. *Carex glacialis* Mack. var. *terrae-novae* Fern., *Carex terrae-novae* Fern.)

SOURCES	CAN, CDFN, GH, MT, NFLD; J. Cayouette (pers. comm.), Robertson 1984, Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-K to Victoria Is., Southampton Is., Ellesmere Is., Baffin Is., south to nBC, swAlta, nSask, nMan, nmost Ont, nQue, wNfld, Lab; G; Iceland, nEurasia (Scoggan 1978-79, emend.).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port.
MAP	Böcher 1954; Fernald 1925a; Hultén 1962; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1930; Robertson 1984.
HABITAT	Gravelly limestone barrens.
ECOREGIONS	IB, IC, IVA, IX
STATUS	Rare in British Columbia, Alberta, Saskatchewan.
NFLD RARITY	S2
NOTES	St. John Island is the type locality of *C. terrae-novae* (Fernald 1942), which seems best merged with *C. glacialis* (J. Cayouette, pers. comm.).

Carex glacialis var. **terrae-novae = Carex glacialis**

Carex hormathodes Fern.

SOURCES	CAN, GH, MT, NFLD; Robertson 1984, Rouleau (unpublished maps).
RANGE	eQue-wNfld, NB, PEI, NS, SPM, Nfld, south to Va (Scoggan 1978-79).
NFLD	St. Barbe South; Port au Port; St. George's; Burgeo and La Poile; Lewisporte; Bonavista South.
MAP	Raymond 1951a; Robertson 1984.
HABITAT	Brackish sandy or gravelly shores; tidal marshes.
ECOREGIONS	IB, IC, ID, III, IVA, VIC
NFLD RARITY	S2
NOTES	Wide-ranging in Newfoundland, however, it is restricted to salt marsh habitats which are scarce. It may be undercollected.

Carex hostiana DC.
(Syn. *Carex hostiana* DC. var. *laurentiana* (Fern. & Wieg.) Fern. & Wieg.)

SOURCES	CAN, DAO, GH, MT, NFLD; Crins & Ball 1987, 1989, Rouleau (unpublished maps).
RANGE	eQue, SPM, and wNfld; Europe (Crins & Ball 1987, 1989, Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South; Humber East; Port au Port; St. George's; Fortune Bay.
MAP	Crins 1985; Crins & Ball 1987, 1989; Heslop-Harrison 1953; Hultén 1958; Hultén & Fries 1986; Marie-Victorin 1929, 1938; Meusel *et al.* 1965; Raymond 1950b, 1951a; Robertson 1984.
HABITAT	Calcareous bogs and shores.
ECOREGIONS	IB, IC, IE, VIC, IX
STATUS	Rare in Canada N2. Rare in Quebec.
NFLD RARITY	S2
NOTES	The Gulf of St. Lawrence plant has been recognized by several authors as var. *laurentiana* . Port au Port (Table Mountain) is the type locality of this taxon (Fernald 1911).

Carex hostiana var. **laurentiana = Carex hostiana**

Carex houghtonii Torr.

SOURCES	CAN, GH, MT; Damman 1964, Robertson 1984, Rouleau (unpublished maps).
RANGE	Alta-Sask, Man, Ont, Que, NB, NS, Nfld, south to Minn, Wis, NY and nNew England (Scoggan 1978-79).
NFLD	Green Bay; Grand Falls; Gander.
MAP	Robertson 1984.
HABITAT	Dry sandy soils of river terraces and clearings in coniferous forests.
ECOREGIONS	IIA
NFLD RARITY	S2
NOTES	May be occasionally adventive in disturbed sites.

Carex hystricina Muhl. ex Willd.

SOURCES	CAN, DAO, GH, MT, NFLD; Robertson 1984, Rouleau (unpublished maps).
RANGE	sBC-sAlta, Sask, sMan, Ont, Que, NB, PEI, NS, wNfld, south to Cal, NMex, Tex, Tenn and Va (Scoggan 1978-79).
NFLD	Humber West (Serpentine River).
MAP	Robertson 1984.
HABITAT	Wet shores.
ECOREGIONS	IA
STATUS	Rare in British Columbia, Alberta, Nova Scotia.
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by E. Rouleau in 1951; it has not been relocated since.

Carex incurva = Carex maritima

Carex katahdinensis = Carex conoidea

Carex lachenalii Schk.
(Syn. *Carex bipartita* sensu Mack., non Bellardi ex All., *Carex lagopina* Wahlenb.)

SOURCES	GH, MT.
RANGE	Coasts of Alas-Y-Mack-K to cBaffin Is. and nmost Ungava-Lab, south to Great Bear L., seK, neMan, Que, sLab and nNfld and in mts of the West through BC and swAlta to Mont, Utah and Colo; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	White Bay North (Little Quirpon); St. Barbe North (Mans Humbug Brook).
MAP	Du Rietz 1940; Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947; Raymond 1951a; Young 1971.
HABITAT	Slopes of slaty and quartzite hills.
ECOREGIONS	VIIIC, IX
STATUS	Rare in Alberta, Manitoba.
NFLD RARITY	SH
NOTES	Known from only two localities. Collected by M.L. Fernald, F.A. Gilbert and B. Long in 1925; it has not been relocated since.

Carex lacustris Willd.

SOURCES	CAN, MT; Damman 1964, Robertson 1984, Rouleau (unpublished maps).
RANG	Alta-Sask, Man, Ont, Que, NB, PEI,NS, wNfld, south to Ida, SDak, Mo and Va (Scoggan 1978-79).
NFLD	St. George's (Stephenville Crossing).
MAP	Hultén & Fries 1986; Meusel *et al.* 1965; Raymond 1951a (eCanada); Robertson 1984.
HABITAT	Sedge marshes and thickets in swamps.
ECOREGIONS	ID
STATUS	Rare in Alberta.
NFLD RARITY	S1
NOTES	Known from only one locality, collected by R. Tuomikoski in 1949. Relocated in 1986.

Carex lagopina = Carex lachenalii

Carex maritima Gunn.
(Syn. *Carex maritima* Gunn. var. *setina* (Christ ex Scheutz) Fern., *Carex incurva* Lightf.)

SOURCES	CAN, DAO, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	Circumpolar, mainly in arctic and subarctic regions; Alas-Y-NWT, nBC, Alta, Sask, nMan, nOnt, nQue, Lab, nwNfld; Eurasia; disjunct in SAmerica (Hultén & Fries1986).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Fernald 1933; Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Moore & Chatter 1971; Porsild 1964; Porsild & Cody 1980; Robertson 1984; Thannheiser 1981, 1984.
HABITAT	Turfy limestone barrens and sandy terrasses along the coast.
ECOREGIONS	IVA, IX
STATUS	Rare in Yukon, British Columbia, Alberta, Saskatchewan, Manitoba.
NFLD RARITY	S2

Carex maritima var. **setina = Carex maritima**

Carex microglochin Wahlenb.

SOURCES	CAN, CDFN, GH, MT, NFLD; Robertson 1984, Rouleau (unpublished maps).
RANGE	nAlas, s-cY and Great Bear L. to coasts of Mack, sBaffin Is. and nmost Ungava-Lab, south to sBC-Alta (stations in Colo), cMan, James Bay, eQue and nwNfld; sSAmerica; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South.
MAP	Blondeau 1990; Couillard *et al.* 1988; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Moore & Chatter 1971; Porsild 1964; Porsild & Cody 1980; Raymond 1950b; Robertson 1984.
HABITAT	Springy fens and turfy limestonebarrens.
ECOREGIONS	IVA, IX
STATUS	Rare British Columbia, Manitoba.
NFLD RARITY	S2
NOTES	Abundant in its habitat, but local.

Carex misandroides = Carex petricosa var. **misandroides**

Carex norvegica Retz.
(Syn. *Carex vahlii* Schk.)

SOURCES	CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE	eK, Baffin Is. and nmost Ungava-Lab-neMan, nmost Ont, Que, nNfld and Lab; disjunct westwards in Colo; G; Iceland; Europe; neSiberia (Murray 1969, Scoggan 1978-79).
NFLD	White Bay North.
MAP	Fernald 1929, 1933; Hultén 1958; Hultén & Fries 1986; Kalela 1944; Meusel *et al.* 1965; Murray 1969; Porsild 1964; Porsild & Cody 1980; Raymond 1950b; Robertson 1984.
HABITAT	Turfy hillsides and slaty barrens.
ECOREGIONS	IX
STATUS	Rare in Northwest Territories.
NFLD RARITY	S1
NOTES	This amphi-Atlantic species (s. lat.) is interpreted as separate from the closely related *C. media* R.Br. (syn. *C. norvegica* ssp. *inferalpina* (Wahl.) Hult.).

Carex novae-angliae Schwein.

SOURCES CAN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE Ont-Que, NB, PEI, NS, SPM, Nfld, south to Wis, Pa and Conn (Scoggan 1978-79).
NFLD Humber West; St. George's; Harbour Main; Ferryland; Hermitage.
MAP Ball & White 1982b; Robertson 1984.
HABITAT Moist thickets along shores; open coniferous forests or scrub on slopes.
ECOREGIONS IA, ID, IE, VIA, VIB, VIC
STATUS Rare in Ontario.
NFLD RARITY S2

Carex pedunculata Muhl. ex Willd.

SOURCES CAN, CDFN, GH, MT; Robertson 1984, Rouleau (unpublished maps).
RANGE sMan-Ont, Que, NB, NS, SPM, Nfld, south to SDak, Iowa, Ohio and nGa (Scoggan 1978-79).
NFLD White Bay North; St. Barbe North; St. Barbe South; Humber West; Port au Port; Green Bay; Grand Falls.
MAP Raymond 1950b (eCanada); Robertson 1984.
HABITAT Birch and conifer forests; bushy limestone ravines; alder thickets.
ECOREGIONS IA, IC, IIA, IVA, IX
STATUS Rare in British Columbia, Saskatchewan, Nova Scotia.
NFLD RARITY S2

Carex petricosa Dewey var. **misandroides** (Fern.) Boivin

(Syn. *Carex misandroides* Fern., *C. franklinii* Boott var. *misandroides* (Fern.) Raymond)

SOURCES CAN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Raymond 1952, Robertson 1984, Rouleau (unpublished maps).
RANGE Que and wNfld.
NFLD St. Barbe South; Humber West; Port au Port.
MAP Dutilly & Lepage 1945-47; Fernald 1924b, 1925a; Hultén 1968; Morisset 1979; Raymond 1951a; Robertson 1984.
HABITAT Limestone cliffs, talus and barrens.
ECOREGIONS IB, IC
STATUS Rare in Canada NT2. Rare in Quebec.
NFLD RARITY SH
NOTES Port au Port (Table Mountain) is the type locality for *C. misandroides* (Fernald 1915b).

Carex pseudo-cyperus L.

SOURCES CAN, DAO, GH, MT, NFLD; Damman 1964, Robertson 1984, Rouleau (unpublished maps).
RANGE Alta-cSask, Man, Ont, Que, NB, PEI, NS, Nfld, south to NDak, Ind and Pa; Eurasia; nAfrica (Scoggan 1978-79).
NFLD Humber East; St. George's; Gander.
MAP Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965; Robertson 1984.
HABITAT Open sandy gravelly shores of rivers and ponds.
ECOREGIONS IB, ID, IIA
STATUS Rare in Alberta.
NFLD RARITY S2

Carex rugosperma var. **tonsa = Carex tonsa**

Carex silicea Olney

SOURCES CAN, GH, MT; Damman 1964, Robertson 1984, Rouleau (unpublished maps).
RANGE eQue-swNfld, NB, PEI, NS and Md (Scoggan 1978-79).
NFLD St. George's (Stephenville Crossing and St. George's).
MAP Raymond 1951a (eCanada); Robertson 1984.
HABITAT Coastal sand dunes.
ECOREGIONS ID
STATUS Rare in Quebec.
NFLD RARITY S1
NOTES Known only from St. George's Bay where populations were relocated in 1986.

Carex terrae-novae = Carex glacialis

Carex tonsa (Fern.) Bickn.
(Syn. *Carex umbellata* Schk. ex Willd. var. *tonsa* Fern., *Carex rugosperma* Mack. var. *tonsa* (Fern.) E. Voss)

SOURCES	MT, CAN; Hay *et al.* 1990.
RANGE	BC, L. Athabasca (Alta and Sask) to Man, Ont, Que, NB, PEI, NS, sLab, Nfld, south to Minn, Ind and Va (Scoggan 1977-78 emend.).
NFLD	Greene Bay; Bonavista North.
MAP	Porsild & Cody 1980.
HABITAT	Dry, open sandy soils.
ECOREGIONS	IIA
STATUS	Rare in British Colombia.
NFLD RARITY	SI
NOTES	Known from only two localities, where it was collected by A. Bouchard, S.G. Hay and L. Brouillet in 1988 (Hay *et al.* 1990). It was found in disturbed sandy sites where it may be occasionally adventive.

Carex umbellata = Carex abdita

Carex umbellata var. **tonsa = Carex tonsa**

Carex vahlii = Carex norvegica

Carex vulpinoidea Michx.

SOURCES	CAN, GH, MT, NFLD; Damman 1964, Robertson 1984, Rouleau (unpublished maps).
RANGE	sBC-Alta, Sask, Man, Ont, Que, NB, PEI, NS, SPM, Nfld, south to Ore, Ariz, Tex and Fla (Scoggan 1978-79).
NFLD	St. George's; Green Bay; Bonavista North.
MAP	Hultén & Fries 1986; Robertson 1984.
HABITAT	Open marshy meadows.
ECOREGIONS	IB, III
STATUS	Rare in British Columbia, Alberta.
NFLD RARITY	S1

Cassiope hypnoides (L.) D.Don

SOURCES	CAN, CDFN, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	se-cMack and seK to cBaffin Is. and nmost Ungava-Lab, south to Que, Lab, wNfld, and the mts of ?NY, Me and NH; G; Iceland; Spitsbergen; Scandinavia, nwSiberia (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West.
MAP	Böcher 1954; Hultén 1958; Hultén & Fries 1986; Löve & Löve 1956b; Porsild 1964; Porsild & Cody 1980; Raymond 1950a.
HABITAT	Alpine ledges, ravines and talus on acidic and ultramafic rocks; snowbeds.
ECOREGIONS	IA, VIIIC
STATUS	Rare in Northwest Territories.
NFLD RARITY	S2
NOTES	Such alpine species may be undercollected in the Long Range Mountains.

Cerastium alpinum L. ssp. **lanatum** (Lam.) Aschers. & Graebn.

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Coast of Mack to nmost Ellesmere Is., south to neSask, neMan, sJames Bay, sLab and nwNfld; circumgreenlandic (Scoggan 1978-79 emend.).
NFLD	White Bay North; St. Barbe North.
MAP	Given & Soper 1981; Hultén 1956, 1958; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980.
HABITAT	Open coastal rocky barrens.
ECOREGIONS	IVC, IX
STATUS	Rare in Saskatchewan, Manitoba .
NFLD RARITY	S2
NOTES	The subspecies is here treated in an inclusive sense. Most of the Newfoundland collections have been placed in var. *lanatum*, but a few have been referred to var. *strigosum* Hult., within the subspecies.

Cerastium beeringianum Cham. & Schlecht.

SOURCES CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE Aleutian Is. and coasts of Alas-Y-Mack-K-Canadian Arctic Archipelago to Ellesmere Is. and nmost Ungava-Lab, south in the West from BC, Alta to Cal-Ariz-Colo, and eastwards to nw Sask, nMan, eQue, wNfld; neAsia.
NFLD St. Barbe North; St. Barbe South; Port au Port.
MAP Fernald 1925a; Hultén 1956, 1968; Morisset 1979; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT Limestone barrens.
ECOREGIONS IC, IVA, VIIIC, IX
STATUS Rare in Saskatchewan.
NFLD RARITY S2

Cerastium beeringianum ssp. **terrae-novae = Cerastium terrae-novae**

Cerastium cerastioides (L.) Britt.
(Syn. *Provancheria cerastioides* (L.) Boivin)

SOURCES GH; Rouleau (unpublished maps).
RANGE sBaffin Is. and nmost Ungava-Lab to eQue and nwNfld; G; Iceland; Jan Mayen; Faeroes; Eurasia (Scoggan 1978-79).
NFLD St. Barbe North (Barr'd Harbour Hill).
MAP Böcher 1954; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964.
HABITAT Wet mossy quartzite rocks and gravel along alpine brooks.
ECOREGIONS VIIIC
STATUS Rare in Canada N2. Rare in Quebec.
NFLD RARITY SH
NOTES Known from only one locality. Collected by M.L. Fernald, K.M. Wiegand, B. Long, F.A. Gilbert and N. Hotchkiss in 1925 (only one plant seen); it has not been relocated since.

Cerastium terrae-novae Fern. & Wieg.
(Syn. *Cerastium beeringianum* Cham. & Schlecht. ssp. *terrae-novae* (Fern. & Wieg.) Hult., in part)

SOURCES CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE wNfld.
NFLD St. Barbe South; Humber West.
MAP Hultén 1956.
HABITAT Serpentine barrens and scree slopes.
ECOREGIONS IA
STATUS Rare in Canada N1.
NFLD RARITY S2
NOTES Blomidon Mountain is the type locality of this endemic species (Fernald & Wiegand 1921). Although it requires further taxonomic study to clarify its status, we treat it here as a distinct species.

Chimaphila umbellata (L.) Barton ssp. **cisatlantica**(Blake) Hult.

SOURCES CAN, CDFN, DAO, MT, NFLD; Rouleau (unpublished maps), Rouleau 1961.
RANGE sMan-Ont-Que-NB-NS, cNfld; south to Ill, NC and Ga.
NFLD Green Bay (South Pond); Gander (New Bay Lake).
MAP Hultén 1968, 1971; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild & Cody 1980.
HABITAT Mossy fir and black spruce forest on sandy soil.
ECOREGIONS IIA
NFLD RARITY S1
NOTES Known from only two localities. Collected by E. Rouleau in 1964 and by R. van Nostrand in 1958. Relocated in 1988.

Cladium mariscoides (Muhl.) Torr.

SOURCES	DAO, GH, MT; Rouleau (unpublished maps).
RANGE	Ont-Que, NB, NS and Nfld, south to Minn, Ill, Ala and Fla; one isolated station in scSask (Scoggan 1978-79).
NFLD	Humber West (Lewis Hills); St. George's (Harry's Brook).
MAP	Hultén 1958; Hultén & Fries 1986; Meusel 1943; Meusel *et al.* 1965; Raymond 1971.
HABITAT	Edge of pools or ponds.
ECOREGIONS	IA, ID
STATUS	Rare in Saskatchewan, New Brunswick.
NFLD RARITY	SH
NOTES	Known from two localities. Last collected by E. Rouleau in 1951.

Claytonia caroliniana Michx. var. **caroliniana**

SOURCES	CDFN, GH, MT, NFLD; Damman 1976, Rouleau (unpublished maps).
RANGE	Ont, Que, NB, PEI, NS, SPM, and wNfld, south to nIll, Tenn and NC (Scoggan 1978-79).
NFLD	Humber West; St. George's.
MAP	Braun 1937; Damman 1976; Lewis *et al.* 1967.
HABITAT	Alluvial alder thickets.
ECOREGIONS	IB, ID, IE
NFLD RARITY	S2

Coeloglossum viride (L.) Hartm. var. **viride**

(Incl. *Habenaria viridis* (L.) R. Br. var. *interjecta* Fern.)

SOURCES	CAN, CDFN, GH, MT; Luer 1975.
RANGE	Alas-nY-Mack-K, nMan, nOnt, cQue, Lab, nwNfld; Iceland; Eurasia (Luer 1975).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West; St. George's.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Luer 1975.
HABITAT	Limestone barrens and alpine tundra.
ECOREGIONS	IA, IB, VIIIA, IX
NFLD RARITY	S2
NOTES	Big Brook is the type locality of *H. viridis* var. *interjecta* (Fernald 1926). *Coeloglossum viride* var. *virescens* (Muhl.) Luer is common in Newfoundland. This group is clearly in need of critical study (Whiting & Catling 1986).

Cornus alternifolia L.f.

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	sMan to Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Mo, Ala and Ga (Scoggan 1978-79).
NFLD	Humber West; Humber East; St. George's; Grand Falls; Gander.
MAP	Hosie 1969; Hough 1947.
HABITAT	Edge of coniferous woods, alder thickets and base of talus slopes.
ECOREGIONS	IA, IB, ID, IIA
NFLD RARITY	S2

Crassula aquatica (L.) Schoenl.

(Syn. *Tillaea aquatica* L.)

SOURCES	GH, MT; R.M. Etcheberry (pers. comm.), Rouleau (unpublished maps).
RANGE	Coast of sAlas, n shore of Great Slave L.; sBC to Ore, Utah and Wyo; Mexico, Tex and La; cOnt; swMinn; Que to NB, PEI, NS, SPM, and Nfld; south along or near the coast to Md; Iceland; Eurasia (Scoggan 1978-79).
NFLD	Argentia (Placentia East); Burin (Point May).
MAP	Cody 1954; Fassett 19vr; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild & Cody 1980; Pryer 1987.
HABITAT	Brackish mud or sand of receding margins of ponds near seashore.
ECOREGIONS	VIB, VII
STATUS	Rare in Northwest Territories, British Columbia, Ontario, Quebec, Nova Scotia.
NFLD RARITY	S1
NOTES	Known from only two localities where it was collected by M.L. Fernald, B. Long and B. Dunbar in 1924, and by R.M. Etcheberry in 1987. Inconspicuous and developing only in late summer. Rare in all provinces, except New Brunswick.

Crataegus brunetiana = Crataegus chrysocarpa

Crataegus chrysocarpa Ashe
(Syn. *Crataegus rotundifolia* nom. ambiguum, *Crataegus brunetiana* Sarg., *Crataegus irrasa* Sarg.)

SOURCES	CAN, DAO, GH, MT, NFLD, UWO; J.B. Phipps (pers. comm.).
RANGE	Man to Nfld, south to nMex and New England (Soper & Heimberger 1982).
NFLD	St. George's; Green Bay; Grand Falls; Gander; Trinity North.
HABITAT	Thickets along gravelly or rocky shores of rivers and lakes.
ECOREGIONS	ID, IE, IIA
NFLD RARITY	S2

Crataegus irrasa = Crataegus chrysocarpa

Crataegus macrosperma Ashe var. **acutiloba** (Sarg.) Egglest.

SOURCES	CAN, DAO, GH, MT, NFLD, UWO; J.B. Phipps (pers. comm.).
RANGE	Que, Nfld; New England and NY (Fernald 1950).
NFLD	St. George's; Grand Falls; Gander; Trinity North.
HABITAT	Thickets along gravelly or rocky shores of rivers and lakes.
ECOREGIONS	IE, IIA
NFLD RARITY	S1

Crataegus rotundifolia = Crataegus chrysocarpa

Crepis nana Richards.

SOURCES	GH; Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack to Prince Patrick Is. and nBaffin Is., s in the West through BC and mts of swAlta to Cal and Utah, farther eastwards s to w/cK, nmost Lab; isolated along Strait of Belle Isle at Pistolet Bay, nwNfld; Asia (Scoggan 1978-79).
NFLD	White Bay North (Burnt Cape).
MAP	Babcock 1947; Fernald 1925a, 1929; Hultén 1968; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Dry limestone barrens.
ECOREGIONS	IX
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by M.L. Fernald, K.M. Wiegand, A.S. Pease, B. Long, L. Griscom, F.A. Gilbert and N. Hotchkiss in 1925 («very scarce»). Not relocated since.

Critesion brachyantherum = Hordeum brachyantherum

Cynoglossum boreale Fern.

SOURCES	CAN, DAO, GH, MT, NLFD; Rouleau (unpublished maps).
RANGE	BC to Alta, Sask, Man, Ont, Que, NB, NS and wNfld, south to Iowa, Wis, Ind, NY and Conn (Scoggan 1978-79).
NFLD	Humber East (Breakfast Head).
HABITAT	Mossy spruce forest on limestone.
ECOREGIONS	IB
STATUS	Rare in Quebec, New Brunswick, Nova Scotia.
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by E. Rouleau in 1950; it has not been relocated since.

Cypripedium calceolus L. var. **planipetalum** (Fern.) Victorin & Rousseau
(Syn. *Cypripedium planipetalum* (Fern.) Morris & Eames, *C. parviflorum* Salisb. var. *planipetalum* Fern.)

SOURCES	CAN, DAO, GH, MT
RANGE	nOnt, eQue and wNfld (Riley *et al.* 1982).
NFLD	St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port.
MAP	Couillard *et al.* 1988; Hultén 1958; Hultén & Fries 1986; Luer 1975; Meusel *et al.* 1965; Riley *et al.* 1982.
HABITAT	Turfy limestone barrens and talus slopes.
ECOREGIONS	IA, IB, IC, IVA, IX
STATUS	Rare in Ontario, Quebec.
NFLD RARITY	S2
NOTES	Savage Cove is the type locality of *C. parviflorum* var. *planipetalum* (Fernald 1926). This endemic of northeastern North America can be locally abundant; its taxonomic status requires further study.

Cypripedium parviflorum var. **planipetalum = Cypripedium calceolus** var. **planipetalum**

Cypripedium planipetalum = Cypripedium calceolus var. **planipetalum**

Cypripedium reginae Walt.

SOURCES CAN, CDFN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE seSask-Man-Ont, Que, NB, PEI, NS and wNfld, south to NDak, Mo and Ga ; Asia? (Scoggan 1978-79 emend.).
NFLD St. Barbe South; Humber West; Humber East; Port-au-Port; St. George's; White Bay South.
MAP Fernald 1933; Luer 1975.
HABITAT Fens and eutrophic larch scrub.
ECOREGIONS IA, IB, IC, ID, IVA, IVD
STATUS Rare in Saskatchewan, Quebec, Nova Scotia.
NFLD RARITY S2

Cystopteris bulbifera (L.) Bernh.

SOURCES CAN, GH, MT; Blasdell 1963, Rouleau (unpublished maps).
RANGE Ont-Que, NB, NS, wNfld, south to Ariz, Ark, Ga (Scoggan 1978-79 emend.).
NFLD St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port; St. George's.
MAP Cody & Britton 1989; Haufler *et al.* 1990.
HABITAT Limestone crevices, ledges and talus; openings in coniferous woods on limestone.
ECOREGIONS IA, IB, IC, ID, IVA
NFLD RARITY S2

Cystopteris fragilis var. **laurentiana = Cystopteris laurentiana**

Cystopteris laurentiana (Weath.) Blasdell (Syn. *Cystopteris fragilis* (L.) Bernh. var. *laurentiana* Weath.)

SOURCES CAN, GH, MT; Blasdell 1963, Lellinger 1985, R.C. Moran (pers. comm.).
RANGE sOnt to Nfld, south to nMich, nWis, and nMinn; disjunct in cPa (Lellinger 1985).
NFLD St. Barbe North; St. Barbe South; Humber West; Port au Port; St. George's; Twillingate.
MAP Cody & Britton 1989.
HABITAT Crevices and ledges of calcareous escarpments.
ECOREGIONS IB, IC, IE, III, IVA
STATUS Rare in Quebec, Nova Scotia.
NFLD RARITY S1
NOTES This species is the fertile allohexaploid of hybrid origin between *C. bulbifera* and *C. fragilis* (Lellinger 1985, R.C. Moran, pers. comm.).

Cystopteris montana (Lam.) Bernh. ex Desv.

SOURCES GH; Lellinger 1985, Rouleau (unpublished maps).
RANGE nAlas-cY, Mack, south to BC and swAlta to nMont, Colo; seSask, Ont, Que, sLab, nwNfld; sG; Eurasia (Scoggan 1978-79 emend.).
NFLD St. Barbe North (Savage Cove).
MAP Cody & Britton 1989; Dickson & White 1983a; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1966a; Porsild & Cody 1980.
HABITAT Mossy glades in spruce thickets on limestone.
ECOREGIONS IX
STATUS Rare in Northwest Territories, British Columbia, Alberta, Saskatchewan, Ontario, Quebec.
NFLD RARITY SH
NOTES Cordilleran disjunct in eastern Canada. Known from only one locality where it was collected by M.L. Fernald, B. Long and B. Dunbar in 1924. It has not been relocated since.

Danthonia intermedia Vasey

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, Cayouette & Darbyshire 1987, Rouleau (unpublished maps).
RANGE	sAlas and scY-L. Athabasca (Alta and Sask), Man, Que, Lab and wNfld, south to nCal, Ariz, NMex and SDak; eAsia (Scoggan 1978-79; Cayouette, pers. comm.).
NFLD	St. Barbe South; Humber West.
MAP	Baum & Findlay 1973; Cayouette & Darbyshire 1987; Fernald 1924b,1925a; Hultén 1968, 1974; Porsild 1966a; Porsild & Cody 1980.
HABITAT	Talus slopes of serpentine rocks.
ECOREGIONS	IA
STATUS	Rare in Northwest Territories, Quebec.
NFLD RARITY	S1

Dennstaedtia punctilobula (Michx.) T.Moore

SOURCES	GH, MT, OAC; Rouleau (unpublished maps).
RANGE	Nfld, Que, Ont, Mich, Wis, Ohio, sInd, sIll and seMiss, south to SC, mts of Ga and Ala (Lellinger 1985).
NFLD	St. George's; Hermitage; Burgeo and La Poile.
MAP	Cody *et al.* 1977; Cody & Britton 1989.
HABITAT	Damp open slopes, on talus; acidic soils.
ECOREGIONS	ID, VIC
NFLD RARITY	S1
NOTES	In two of the three known localities, this fern appears to be adventive.

Deschampsia atropurpurea = Vahlodea atropurpurea var. **atropurpurea**

Diphasiastrum alpinum = Lycopodium alpinum

Diphasiastrum digitatum = Lycopodium digitatum

Diphasium alpinum = Lycopodium alpinum

Draba allenii = Draba lactea

Draba aurea M. Vahl var. **aurea**
(Syn. *Draba minganensis* (Victorin) Fern.)

SOURCES	MT; Rouleau (unpublished maps).
RANGE	cAlas-Y and nwMack-Great Bear L., Great Slave L., nwSask, neMan-Ont, islands in James Bay, Que, nLab and ncNfld and in the Rockies through BC and swAlta-Ariz and NMex; G (Scoggan 1978-79 emend.).
NFLD	Lewisporte (Sugar Loaf Island in Notre Dame Bay).
MAP	Fernald 1934b; Hultén 1968; Porsild 1966a.
HABITAT	Upper part of talus slope.
ECOREGIONS	III
STATUS	Rare in Manitoba.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by D. Forsey in 1968; it has not been relocated since.

Draba fladnizensis var. **heterotricha = Draba lactea**

Draba glabella Pursh var. **pycnosperma** (Fern. & Knowlt.) Mulligan
(Syn. *Draba pycnosperma* Fern. & Knowlt., *Draba hirta* L. var. *pycnosperma* (Fern. & Knowlt.) Boivin)

SOURCES	GH; Fernald 1934; G.A. Mulligan (1976, pers. comm.), Rouleau (unpublished maps).
RANGE	eQue, nwNfld and NS (Scoggan 1978-79).
NFLD	St.Barbe South (Highlands of St. John; Doctor Hill).
MAP	Fernald 1934b.
HABITAT	Limestone cliffs and talus.
ECOREGIONS	IVA
STATUS	Rare in Canada N4N5TU. Rare in Quebec, Nova Scotia.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by M.L. Fernald and B. Long in 1925; it has not been relocated since.

Draba hirta var. **pycnosperma = Draba glabella** var. **pycnosperma**

Draba lactea M.F. Adams
(Syn. *Draba fladnizensis* Wulfen var. *heterotricha* (Lindl.) Ball, *Draba allenii* Fern.)

SOURCES	MT; Mulligan 1974, Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-K, Canadian Arctic Archipelago, nBC, swAlta, neMan, Que, Lab, wNfld; G; Spitsbergen; nEurasia (Mulligan 1974, Scoggan 1978-79).
NFLD	St.Barbe South (Gros Morne National Park: Trout River).
MAP	Fernald 1934b; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Mulligan 1974; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Serpentine barrens.
ECOREGIONS	IA
STATUS	Rare in British Columbia, Alberta, Manitoba.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by E. Rouleau in 1953, it has not been relocated since.

Draba minganensis = Draba aurea var. **aurea**

Draba nivalis Liljeb.

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-K to nmost Ellesmere Is. and nmost Ungava-Lab, south in the West through the mts of BC and swAlta to Ore, Ida, Wyo and Colo, farther eastwards south to Great Bear L., neMan, nOnt, Que and nwNfld; nearly circumgreenlandic; Iceland; Spitsbergen; nEurasia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Fernald 1925a, 1934b; Hultén 1968; Hultén & Fries 1986; Mulligan 1974; Porsild 1958, 1964; Riley 1984b; Rousseau 1974.
HABITAT	Exposed cliffs and rocky crests.
ECOREGIONS	VIIIC, IX
STATUS	Rare in Manitoba, Ontario.
NFLD RARITY	S2

Draba pycnosperma = Draba glabella var. **pycnosperma**

Drosera linearis Goldie

SOURCES	CAN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	BC to Sask, sMan, Ont, Que and wNfld, south to Minn, Mich, and Me (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West.
MAP	Porsild & Cody 1980; Wynne 1944.
HABITAT	Borders of ponds in sedge meadows and eutrophic bogs.
ECOREGIONS	IA, IB, IVA, IX
STATUS	Rare in Alberta, Saskatchewan, Manitoba, Quebec.
NFLD RARITY	S1

Dryas drummondii Richards. ex Hook.

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Porsild 1947, Rouleau 1949b, 1956b.
RANGE	Alas to L. Athabasca, nwSask, south in the Cordillera through BC and swAlta to Ore, Wash, Mont, disjunct eastwards in wOnt, eQue (Gaspé, Anticosti, Mingan) and wNfld (Scoggan 1978-79).
NFLD	Humber West; Humber East.
MAP	Fernald 1918a; Hultén 1959, 1968; Keddy 1984b; Marquis 1981 (Great Lakes); Meusel *et al.* 1965; Miller & Thompson 1979; Morisset 1979; Porsild 1947, 1958; Porsild & Cody 1980; Raup 1947; Rouleau 1956b.
HABITAT	Ledges, crevices and talus at base of limestone cliffs.
ECOREGIONS	IB
STATUS	Rare in Saskatchewan, Ontario.
NFLD RARITY	S2
NOTES	Known only from a few populations around the Bay of Islands, it was first discovered by H. Penson, then Commissioner of Finance under the Newfoundland Commission Government, in 1941.

Dryopteris marginalis (L.) A. Gray

SOURCES CAN, MT; Carlson & Wagner 1982, Rouleau (unpublished maps).
RANGE Ont, Que, NB, NS, wNfld, south to Okla, Ark, Ala and Ga (Scoggan 1978-79 emend.).
NFLD St. Barbe North (Carlson & Wagner 1982); St. George's (Barachois Pond Provincial Park).
MAP Carlson & Wagner 1982; Cody & Britton 1989.
HABITAT Steep rocky talus, openings in birch forests.
ECOREGIONS ID
NFLD RARITY S1
NOTES We have been unable to document the northerly locality (St. Barbe North) mapped by Carlson & Wagner (1982); otherwise known from only one locality. First collected by G. Parsons in the 1960s. Relocated in 1986.

Dryopteris robertiana = Gymnocarpium robertianum

Dryopteris thelypteris var. **pubescens = Thelypteris palustris** var. **pubescens**

Elatine minima (Nutt.) Fisch. & Meyer

SOURCES CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE Minn-Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Wis, Mich, Va and Md (Scoggan 1978-79).
NFLD Humber West; Trinity South; St. John's North; St. Mary's; Hermitage; Burgeo and La Poile.
MAP Fassett 1939; Gauthier & Raymond 1949; Keddy 1987b.
HABITAT Shallow waters at the magins of ponds and muddy tidal shores in estuaries.
ECOREGIONS IB, V, VIA, VIB, VIC
STATUS Rare in Ontario, New Brunswick.
NFLD RARITY S2
NOTES Such aquatic species may be undercollected.

Eleocharis kamtschatica (C.A. Meyer) Komarov
(Syn. *Eleocharis savatieri* Clarke, *Scirpus kamtschaticus* C.A. Meyer)

SOURCES CAN, GH, MT; P.W. Ball (pers. comm.), Hay *et al.* 1990.
RANGE Alas south to BC; disjunct eastwards in James Bay (Ont and Que), n and eQue, nLab, nwNfld; eAsia.
NFLD St. Barbe South (Eastern Head, Pointe Riche).
MAP Ball & White 1982c; Dutilly *et al.* 1958; Hultén 1962, 1968; Hultén & Fries 1986; Riley & Mc Kay 1980; Schofield 1959; Svenson 1947.
HABITAT Peaty and marly borders of shallow ponds on limestone barrens, near the coast.
ECOREGIONS IVA, IX
STATUS Rare in British Columbia, Ontario.
NFLD RARITY S1
NOTES Known from only two localities. This species is a recent addition to the flora (Hay *et al.* 1990).

Eleocharis nitida Fern.
(Syn. *Eleocharis tenuis* sensu Boivin, non (Willd.) Schultes)

SOURCES CAN, DAO, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE swAlas, nSask; eastwards very locally in neMinn, Que, NS, Nfld and nNH (Scoggan 1978-79 emend.).
NFLD St. Barbe South; Humber East; Grand Falls.
MAP Hultén 1968; Marie-Victorin & Rolland-Germain 1942 (eCanada).
HABITAT Open damp gravelly or peaty barrens or shores, with eutrophic seepage.
ECOREGIONS IA, IB, IIB
STATUS Rare in Saskatchewan, Nova Scotia.
NFLD RARITY S1

Eleocharis obtusa var. **ovata = Eleocharis ovata**

Eleocharis ovata (Roth) Roem. & Schultes (Syn. *Eleocharis obtusa* (Willd.) Schultes var. *ovata* (Roth) Drappalik & Mohlenbrock)

SOURCES CAN, GH; Hines 1975, Rouleau (unpublished maps).
RANGE wWash, nOre; Minn to Ont, Que, NB, PEI, NS and Nfld, south to Mo, Ill, Pa and NJ; Hawaii; Eurasia (Hines 1975, Scoggan 1978-79).
NFLD White Bay North; Grand Falls; St. John's East.
MAP Hines 1975; Hultén & Fries 1986; Svenson 1939.
HABITAT Wet sandy or gravelly shores of ponds.
ECOREGIONS IIA, VIB
NFLD RARITY SH
NOTES The White Bay North collection by Sir Joseph Banks (BM) needs to be substantiated.

Eleocharis pauciflora = Eleocharis quinqueflora

Eleocharis pauciflora var. **fernaldii = Eleocharis quinqueflora**

Eleocharis quinqueflora (Hartm.) Schwarz (Syn. *Eleocharis pauciflora* (Lightf.) Link, *Eleocharis pauciflora* (Lightf.) Link var. *fernaldii* Svens.)

SOURCES CAN, CDFN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE scY and Great Bear L. to Great Slave L., Sask, Man, James Bay (Ont and Que), Que, NB, PEI, NS, sLab, Nfld; south to Cal, Ariz, NMex, SDak, Iowa, Ohio, Pa and NJ; wG; Iceland; Eurasia (Scoggan 1978-79).
NFLD St. Barbe North; St. Barbe South; Humber West; St. George's; Grand Falls; Gander.
MAP Böcher 1951; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1966a; Porsild & Cody 1980; Svenson 1934.
HABITAT Wet calcareous shores, ledges, and marly bogs.
ECOREGIONS IA, IB, ID, IIA, IIB, IVA, IX
STATUS Rare in British Columbia, New Brunswick.
NFLD RARITY S2

Eleocharis savatieri = Eleocharis kamtschatica

Eleocharis tenuis = Eleocharis nitida

Elymus virginicus L.

SOURCES CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE BC and Alta-Sask, Man, Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Wash, Ariz, Tex and Fla (Scoggan 1978-79).
NFLD St. Barbe South; Humber West; St. George's; Placentia West; Hermitage.
MAP Hitchcock & Chase 1950.
HABITAT Gravelly shores of coastal estuaries.
ECOREGIONS IB, IE, VIB, VIC
STATUS Rare in Alberta.
NFLD RARITY S2

Empetrum atropurpureum Fern. & Wieg. (Syn. *Empetrum nigrum* L. var. *atropurpureum* (Fern. & Wieg.) Boivin, *Empetrum eamesii* Fern. & Wieg. ssp. *atropurpureum* (Fern. & Wieg.) D. Löve)

SOURCES CAN, CDFN, MT, NFLD; Dupuis 1986, P. Morisset (pers. comm.).
RANGE Que, PEI, NS and Nfld; New England.
NFLD Humber West; White Bay South; Green Bay; Twillingate; Lewisporte; Bonavista South.
MAP Hultén 1971; Hultén & Fries 1986; Löve 1960; Morisset (ined.); Rousseau 1974.
HABITAT Exposed turfy Empetrum heath along the coast.
ECOREGIONS IA, III, VIA
STATUS Rare in Nova Scotia.
NFLD RARITY S2
NOTES This little - known eastern endemic may be undercollected on the Island. Although it was described by Fernald and Wiegand from New England in 1913, it was not known from Newfoundland until collected by Damman in 1965.

Empetrum eamesii ssp. **atropurpureum = Empetrum atropurpureum**

Empetrum nigrum var. **atropurpureum = Empetrum atropurpureum**

Epilobium alpinum = Epilobium anagallidifolium

Epilobium alpinum var. **lactiflorum = Epilobium lactiflorum**

Epilobium anagallidifolium Lam.
(Syn. *Epilobium alpinum* sensu auctt.)

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, P.C. Hoch (pers. comm.).
RANGE	Aleutian Is., Alas-Y-wMack, BC, swAlta; south to Wash, Ore, neNev, Mont, Wyo, SDak, Colo, NMex; n/eQue (disjunct in the Shickshock Mts)-Lab, nwNfld; G; Eurasia.
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Snowbeds and moist thickets.
ECOREGIONS	VIIIC, IX
STATUS	Rare in Northwest Territories.
NFLD RARITY	S1
NOTES	Such alpine species may be undercollected in the Long Range Mountains.

Epilobium davuricum Fisch. ex Hornem.
(Syn. *Epilobium palustre* L. var. *davuricum* (Fisch.) Welsh)

SOURCES	CAN, GH, MT; P.C. Hoch (pers. comm.).
RANGE	Alas-Y-Mack, cK, nMan, Que, nwNfld, Lab; Eurasia (Porsild & Cody 1980).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Hultén 1958, 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Peaty depressions in limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Northwest Territories, British Columbia, Manitoba, Quebec.
NFLD RARITY	S2

Epilobium lactiflorum Hausskn.
(Syn. *Epilobium alpinum* L. var. *lactiflorum* (Hausskn.) Hitchc.)

SOURCES	CAN, CDFN, DAO, GH, MT; P.C. Hoch (pers. comm.).
RANGE	Alas-Y-Mack, south through BC and Alta to Colo, Utah, Nev; disjunct eastward in Que, NB, wNfld, Lab, south to mts in NH and Me; G; Iceland; nEurope.
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West.
MAP	Böcher 1938; Hultén 1958, 1968; Hultén & Fries 1986; Raup 1947.
HABITAT	Brooksides and moist alpine ravines.
ECOREGIONS	IA, IB, VIIIC, IX
STATUS	Rare in Northwest Territories, New Brunswick.
NFLD RARITY	S2

Epilobium palustre var. **davuricum = Epilobium davuricum**

Epilobium saximontanum Hausskn.
(Syn. *Epilobium scalare* Fern., *Epilobium steckerianum* Fern.)

SOURCES	GH; P.C. Hoch (pers. comm.).
RANGE	Predominantly in the Rocky Mts from Alta to NMex (and barely into the southern Sierra Nevada, Cal), with also very scattered localities in eastern Canada (Que, nwNfld, Lab) (P.C. Hoch, pers. comm.).
NFLD	St. Barbe North; St. Barbe South.
HABITAT	Mossy glades and stream banks; ravines; on limestone.
ECOREGIONS	IVA, IX
STATUS	Rare in Alberta.
NFLD RARITY	SH
NOTES	Doctor Hill is the type locality of *Epilobium scalare* (Fernald 1926). P.C. Hoch (pers. comm.) considers Fernald's eastern endemics, *E. scalare* and *E. steckerianum* , to be conspecific with the Cordilleran species, *E. saximontanum*.

Epilobium scalare = Epilobium saximontanum

Epilobium steckerianum = Epilobium saximontanum

Equisetum hyemale L. var. **affine** (Engelm.)A. A. Eat.

Sources	GH; Rouleau (unpublished maps).
Range	Alas-Mack, BC-NB, NS, Nfld (Boivin 1966-67), south to Ga, Tex and NMex; Mexico; Guatemala (Fernald 1950, Hauke 1963).
Nfld	Humber East (Middle Birchy Pond).
Map	Cody & Britton 1989; Hauke 1963; Hultén 1962; Hultén & Fries 1986; Petrick-Ott 1979; Schaffner 1939.
Habitat	Gravelly beaches.
Ecoregions	IIA
Nfld rarity	SH
Notes	Known from only one locality where it was collected by M.L.Fernald and K.M. Wiegand in 1910. It was not been relocated since. There is some question as to the identity of the Newfoundland collection which has been referred by Hauke (1963) to *E.* x *trachyodon* A. Braun, a hybrid between *E. hyemale* and *E. variegatum* Schleicher.

Equisetum pratense Ehrh.

Sources	CAN, GH, MT, OAC; Rouleau (unpublished maps).
Range	nAlas to scY, cMack, cSask, cMan, nOnt, Que, NB, NS, Nfld and sLab, south to sBC, Mont, Iowa, NJ; Iceland; Eurasia (Scoggan 1978-79).
Nfld	St. Barbe South; Humber West; Humber East; St. George's; White Bay South.
Map	Cody & Britton 1989; Hultén 1962,1968; Hultén & Fries 1986; Petrik-Ott 1979.
Habitat	Black spruce fens, calcareous seepage areas on upper talus slopes.
Ecoregions	IB, ID, IIA, IVA, VIIIA
Nfld rarity	S2

Erigeron acris var. **elatus** = **Erigeron elatus**

Erigeron acris var. **oligocephalus** = **Erigeron elatus**

Erigeron compositus Pursh

Sources	CAN, DAO, GH, MT, NFLD; Cayouette 1984, Rouleau (unpublished maps).
Range	Alas, coasts of Y-Mack to Banks Is., Melville Is. and Ellesmere Is., south in the West through BC-Alta and sSask to Cal, Ariz and SDak, farther eastwards to Great Slave L. and Baffin Is.; isolated eastern localities in nUngava, eQue (Gaspé) and wNfld; G; neSiberia (Scoggan 1978-79 emend.).
Nfld	Humber East (Breakfast Head).
Map	Dansereau 1957; Fernald 1925b, 1929; Hultén 1968; Marie-Victorin 1925; Morisset 1979; Porsild 1964; Porsild & Cody 1980.
Habitat	Limestone boulder talus at bottom of scree slope
Ecoregions	IB
Status	Rare in British Columbia (var. *discoideus* A. Gray), Quebec.
Nfld rarity	S1
Notes	Known from only one locality, discovered by E. Rouleau in 1950. Relocated in 1987.

Erigeron elatus (Hook). Greene (Syn. *Erigeron acris* L. var. *elatus* (Hook.) Cronq., *Erigeron acris* L. var. *oligocephalus* Fern. & Wieg., *Erigeron elatus* (Hook.) Greene var. *oligocephalus* (Fern. & Wieg.) Fern.)

Sources	CAN, GH, MT; J. Cayouette (pers. comm.), Rouleau (unpublished maps).
Range	Alas-Y-Mack-K, southwards from BC-Alta-Sask-Man-nOnt-Que, Lab, nwNfld.
Nfld	White Bay North.
Map	Hultén 1971; Hultén & Fries 1986; Morisset 1979; Porsild & Cody 1980; Raup 1947.
Habitat	Slate coastal cliffs.
Ecoregions	IX
Status	Rare in Saskatchewan.
Nfld rarity	S1
Notes	First collected by Huntsman at Quirpon Harbour in 1923. Relocated in 1987.

Erigeron elatus var. **oligocephalus** = **Erigeron elatus**

Eriophorum brachyantherum Trautv. & Meyer var. **brachyantherum**
(Syn. *Eriophorum opacum* (Björnstr.) Fern.)

Sources	CAN, DAO, GH, MT; Rouleau (unpublished maps).
Range	nAlas-Y-Mack-K to cBaffin Is., Que and Nfld; south to seBC, ?Mont, sAlta-Sask-Man, Ont and Que; Eurasia (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe North; St. Barbe South; St. George's.
Map	Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947; Raymond 1950a, 1951b; Seidenfaden & Sørensen 1933.
Habitat	Boggy limestone barrens.
Ecoregions	IB, ID, IX
Nfld rarity	S2
Notes	A record for Grand Falls (Rouleau, unpublished maps) could not be substantiated and appears doubtful.

Eriophorum callitrix Cham. var. **callitrix**

Sources	CAN, GH, MT; Rouleau (unpublished maps).
Range	nAlas, sY and nwMack to Banks Is., Victoria Is., e-cK, nBaffin Is., nmost Ungava-Lab and Nfld; south to Alas, nBC, Great Bear L., neMan and sJames Bay ; eG; neAsia (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe North.
Map	Hultén 1968; Packer & Vitt 1974; Porsild 1964; Porsild & Cody 1980; Raymond 1951b; Seidenfaden & Sørensen 1933.
Habitat	Peaty depressions in limestone barrens.
Ecoregions	IX
Status	Rare in British Columbia, Alberta, Manitoba.
Nfld rarity	S2

Eriophorum gracile W.D.J. Koch ex Roth

Sources	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	scAlas-Great Slave L., L. Athabasca (Alta and Sask), Man, nOnt, Que, PEI, NS, SPM, Nfld and sLab; south to nCal, Colo, Neb, Minn and Del; Eurasia (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe South; Humber West; Grand Falls.
Map	Hultén 1962, 1968; Hultén & Fries 1986; Porsild & Cody 1980.
Habitat	Edge of pools in bogs.
Ecoregions	IA, IB, IIA, IX
Status	Rare in Northwest Territories, Nova Scotia, New Brunswick.
Nfld rarity	S2

Eriophorum opacum = Eriophorum brachyantherum var. **brachyantherum**

Eriophorum scheuchzeri Hoppe

Sources	CAN, GH, MT; Rouleau (unpublished maps).
Range	Coasts of Alas-Y-Mack-K through Canadian Arctic Archipelago to nEllesmere Is. and nUngava-Lab; south to nBC, Great Slave L., nSask, nMan, nOnt, nQue, sLab and nwNfld; circumgreenlandic; Iceland; Spitsbergen; Eurasia (Scoggan 1978-79 emend.).
Nfld	St. Barbe North.
Map	Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980; Raup 1947.
Habitat	Fens or boggy swales on limestone bedrock.
Ecoregions	IX
Status	Rare in Saskatchewan.
Nfld rarity	S1
Notes	The record for Trinity South (Rouleau, unpublished maps) could not be substantiated and appears doubtful.

Erysimum coarctatum = Erysimum inconspicuum var. **coarctatum**

Erysimum inconspicuum (S.Wats.) MacM. var. **coarctatum** (Fern.) G.Rossbach
(Syn. *Erysimum coarctatum* Fern.)

Sources	GH; R.A. Price (pers. comm.), Rouleau (unpublished maps), A. Sabourin (pers. comm.).
Range	eQue and wNfld (Scoggan 1978-79 emend.).
Nfld	St. Barbe South (Chimney Cove).
Map	Hultén 1968; Morisset 1979; Porsild & Cody 1980; Rousseau 1974.
Habitat	High sea-cliff.
Ecoregions	IA
Status	Rare in Canada N?T2. Rare in Quebec, New Brunswick.
Nfld rarity	SH
Notes	Known from only one locality. Discovered by A.C. Waghorne in 1896; not been relocated since.

Fallopia cilinode = Polygonum cilinode

Festuca altaica Trin. in Ledeb.
(Syn. *Festuca scabrella* auctt., non Torr. ex Hook.)

Sources	CAN, DAO, GH, MT; Aiken & Darbyshire (1990), Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	ncAlas-Y-Mackenzie R. Delta and Great Bear L. through BC and swAlta, south to Oreg, Ida, Colo and SDak; isolated in Mich, Que, wNfld; eAsia (Scoggan 1978-79 emend.).
Nfld	White Bay North; St. Barbe South; Humber West; St. George's.
Map	Aiken & Darbyshire 1990; Alexeev 1985; Dutilly *et al.* 1953; Fernald 1925a; Harms 1985; Hultén 1968; Johnston 1958; Johnston & Cosby 1966; Pavlick & Looman 1984; Raup 1947.
Habitat	Serpentine and limestone cliffs, talus and barrens.
Ecoregions	IA, IVC
Status	Rare in Alberta, Ontario (ssp. *hallii* (Vasey) Harms), Quebec.
Nfld rarity	S2
Notes	The populations of this complex in Quebec and Newfoundland may be attributed in part to *F. altaica* (Aiken & Riley 1984), but their exact identity is controversial. Harms (1985) refers these eastern isolates to *F. altaica* ssp. *scabrella* (Torr.) Hult., Pavlick & Looman (1984) to *F. campestris* Rydb., and Alexeev (1985)to *F. hallii* (Vasey) Piper.

Festuca brachyphylla Schultes & Schultes
(Syn. *Festuca ovina* L. var. *brachyphylla* (Schultes & Schultes) Piper, *Festuca ovina* L. var. *brevifolia* (R.Br.) S.Wats. pro pars, *Festuca brevifolia* R. Br.)

Sources	CAN, DAO, GH, MT, NFLD; Aiken & Darbyshire (1990), Rouleau (unpublished maps).
Range	Alas-Y-Mack-F-K, BC-swAlta, nSask, nMan-nOnt-Que-Lab-wNfld; Wyo, Colo; G; Eurasia (Hultén 1968 emend.).
Nfld	White Bay North; St. Barbe South; Humber East; Port au Port.
Map	Aiken & Darbyshire 1990; Alexeev 1985; Frederiksen 1982; Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947.
Habitat	Dry limestone ledges, crests and barrens.
Ecoregions	IB, IC, IVC, VIIIB, IX
Status	Rare in Saskatchewan.
Nfld rarity	S2

Festuca brachyphylla ssp. **saximontana = Festuca saximontana**

Festuca brevifolia = Festuca brachyphylla

Festuca ovina var. **brachyphylla = Festuca brachyphylla**

Festuca ovina var. **brevifolia = Festuca brachyphyllaa**

Festuca ovina var. **brevifolia = Festuca saximontana**

Festuca ovina var. **saximontana = Festuca saximontana**

Festuca ovina var. **vivipara = Festuca vivipara** ssp. **hirsuta**

Festuca prolifera (Piper) Fern.
(Syn. *Festuca rubra* L. var. *prolifera* Piper, *Festuca rubra* L. f. *prolifera* (Piper) Hyl., *Festuca prolifera* (Piper) Fern. var. *lasiolepis* Fern.)

SOURCES CAN, DAO, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).

RANGE eMack, eK, nwSask, neMan, nOnt, nwQue; isolated stations dispersed in eQue, nNS, wNfld, sLab, and alpine summits of NH and Me.

NFLD St. Barbe North; St. Barbe South; Humber East; Humber West; Port au Port.

MAP Alexeev 1985; Fernald 1933; Hultén 1968; Morisset 1979; Porsild 1966a; Porsild & Cody 1980.

HABITAT Limestone summits, cliffs and talus slopes.

ECOREGIONS IA, IB, IC, VIIIC, IX

STATUS Rare in Northwest Territories, Saskatchewan, Nova Scotia.

NFLD RARITY S2

NOTES Stanleyville, Bonne Bay, is the type locality of *F. prolifera* var. *lasiolepis* (Fernald 1933). The taxonomy of this species is controversial and it is treated by some authors as a variety or form of *F. rubra* . More recently, Aiken *et al.* (1988) have suggested that proliferating spikelets in the red fescue complex is an induced phenomenon that does not justify taxonomic recognition.

Festuca prolifera var. **lasiolepis** = **Festuca prolifera**

Festuca rubra f. **prolifera** = **Festuca prolifera**

Festuca rubra var. **prolifera** = **Festuca prolifera**

Festuca saximontana Rydb.
(Syn. *Festuca ovina* L. var. *saximontana* (Rydb.) Gleas., *Festuca brachyphylla* Schultes & Schultes ssp. *saximontana* (Rydb.) Hult., *Festuca ovina* L. var. *brevifolia* (R. Br.) S. Wats. pro parte sensu Boivin)

SOURCES CAN, GH, MT, NFLD; Aiken & Darbyshire (1990), Bouchard *et al.* 1986, Rouleau (unpublished maps).

RANGE Alas-Y-sMack, BC-Ont, south to Cal-Ariz-Colo; scattered eastern localities in nOnt, Que, wNfld, sBaffin Is.; south to Minn and Mich; wG.

NFLD St. Barbe South; Humber West; Humber East; Port au Port; Twillingate.

MAP Aiken & Darbyshire 1990; Alexeev 1985; Frederiksen 1982; Hultén 1962, 1968; Hultén & Fries 1986; Morisset 1979; Porsild & Cody 1980.

HABITAT Usually on dry limestone talus, cliffs, ridges and barrens.

ECOREGIONS IB, IC, III, IVA

NFLD RARITY S2

Festuca scabrella = **Festuca altaica**

Festuca vivipara (L.) J.E. Sm. ssp. **hirsuta** (Schol.) Frederiksen
(Syn. *Festuca ovina* L. var. *vivipara* L.)

SOURCES CAN, DAO, GH, MT, NFLD; Aiken & Darbyshire (1990), Rouleau (unpublished maps)

RANGE eQue, sLab, nNfld, Ellesmere Is.; G (Frederiksen 1981).

NFLD White Bay North; St. Barbe North; St. Barbe South; Humber West; Fogo.

MAP Aiken & Darbyshire 1990; Alexeev 1985; Fredericksen 1981; Hultén 1958, 1968; Hultén & Fries 1986; Porsild 1966a.

HABITAT Limestone crests, ledges and gravelly barrens.

ECOREGIONS IA, IB, III, IX

NFLD RARITY S3

NOTES Although 20-25 populations are known, they are small and mostly restricted to the north.

Fraxinus nigra Marsh.

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Bearns 1967, Rouleau (unpublished maps).
RANGE	seMan to Ont, Que, NB, PEI, NS, and Nfld; south to NDak, Iowa, Ohio and Del (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Humber East; St. George's; White Bay South; Green Bay.
MAP	Bearns 1967; Fowells 1965; Hosie 1969; Hough 1947; Little 1971; Munns 1938; Preston 1961.
HABITAT	Alluvial thickets, alder swamps; base of limestone talus slopes.
ECOREGIONS	IB, ID, IIA
NFLD RARITY	S3
NOTES	First discovered in 1901 by Howe and Lang in the Bay of Islands. A collection from St.John's probably represents an introduction. Although known from 20-25 localities, the populations are small and restricted.

Galium kamtschaticum Steller ex Schultes & Schultes

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Aleutian Is. and sAlas through the coast of BC to nWash; isolated stations in nwMack and e L. Superior, Ont; Que, NB, NS, wNfld to the mts of nNY and nNew England; eAsia (Scoggan 1978-79 emend.).
NFLD	St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port; St. George's.
MAP	Dugal 1987; Fernald 1933; Hultén 1968; Porsild 1958; Porsild & Cody 1980.
HABITAT	Cool moist woods and thickets on limestone.
ECOREGIONS	IA, IB, IC, ID, IE, IVA
STATUS	Rare in Northwest Territories, Ontario, New Brunswick.
NFLD RARITY	S2

Gaultheria procumbens L.

SOURCES	CDFN, GH, MT, NFLD; Etcheberry 1985, Rouleau (unpublished maps).
RANGE	seMan-Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Minn, Wis, Ala and Ga (Scoggan 1978-79).
NFLD	Port au Port; Grand Falls; Hermitage.
MAP	Etcheberry 1985.
HABITAT	Dry coniferous forests; peaty slopes with ericaceous shrubs.
ECOREGIONS	IC, IIA, VIC
NFLD RARITY	S1
NOTES	First discovered by Huntsman in 1923 at De Grat Bay (Port au Port). The record for Terra Nova National Park (Deichmann & Bradshaw 1984) could not be substantiated.

Gentiana propinqua = Gentianella propinqua ssp. **propinqua**

Gentianella propinqua (Richards.) Gillett ssp. **propinqua**

(Syn. *Gentiana propinqua* Richards.)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Alas-Y-Mack, north to Banks Is. and Victoria Is., south through mts of BC and Alta to Mont; disjunct eastwards to Hudson Bay (Man, Ont, Que), Gaspé, nwNfld; extreme ne Asia (Gillett 1963).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Blondeau 1986; Gillett 1957, 1963; Hultén 1968; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Coastal turfy limestone barrens.
ECOREGIONS	IVA, IX
STATUS	Rare in Manitoba, Quebec.
NFLD RARITY	S2
NOTES	May become adventive in disturbed roadsides along gravel roads on limestone barrens.

Gnaphalium norvegicum Gunn.
(Syn. *Omalotheca norvegica* (Gunn.) Schultz-Bip. & F.W. Schultz)

Sources	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	Que-Lab, nwNfld;G; Iceland; Eurasia (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe North; St. Barbe South.
Map	Hultén 1958; Hultén & Fries 1986; Porsild 1958.
Habitat	Alpine snowbeds; turfy barrens and slopes.
Ecoregions	VIIIC, IX
Status	Rare in Canada N2. Rare in Quebec.
Nfld rarity	S1
Notes	Such alpine species may be undercollected in the Long Range Mountains.

Gnaphalium supinum L.
(Syn. *Omalotheca supina* (L.) DC.)

Sources	CAN, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	n/eQue (disjunct in Schickshock Mts)-nLab, nwNfld; disjunct south to Me (Mt Katahdin) and NH (Mt Washington); G; Iceland; Europe; wAsia (Scoggan 1978-79).
Nfld	St. Barbe South (Gros Morne National Park).
Map	Blondeau & Cayouette 1987; Böcher 1954; Hultén 1958; Hultén & Fries 1986.
Habitat	Alpine snowbeds.
Ecoregions	VIIIC
Nfld rarity	S1
Notes	First discovered by H. Penson on Gros Morne Mountain in 1941. Populations were relocated in 1973 and 1984. Such alpine species may be undercollected in the Long Range Mountains.

Goodyera oblongifolia Raf.

Sources	MT, NFLD; Hay *et al.* 1990.
Range	Alaska Panhandle and BC to swAlta, swSask, Ont, Que, nNB, NS and wNfld, south to Cal, Mexico, NMex, Minn, Wis and nMe (Scoggan 1978-79 emend.).
Nfld	Humber West (Serpentine Lake).
Map	Case 1964 (Great Lakes); Fernald 1925; Hultén 1968; Kallunki 1976; Luer 1975; Marquis 1981 (Great Lakes).
Habitat	Coniferous woods.
Ecoregions	IB
Status	Rare in Saskatchewan, New Brunswick, Nova Scotia.
Nfld rarity	SH
Notes	Known from only one locality. Collected by E. Rouleau in 1955, it has not been relocated since.

Gratiola aurea Muhl.
(Syn. *Gratiola lutea* Raf.)

Sources	GH; Rouleau (unpublished maps).
Range	eNDak to Ont, Que, NS and Nfld, south to Ill, NY, Md, and isolated in Fla (Scoggan 1978-79).
Nfld	Trinity South (Whitbourne).
Map	Meusel *et al.* 1978; Pennell 1935.
Habitat	Sandy or gravelly magin of ponds.
Ecoregions	VIB
Status	Rare in Quebec.
Nfld rarity	SH
Notes	Known from only one locality. Collected by M.L. Fernald and K.M. Wiegand in 1911, and by M.L. Fernald, B. Long and B. Dunbar in 1924, it has not been relocated since.

Gratiola lutea = Gratiola aurea

Gymnocarpium robertianum (Hoffm.) Newm.
(Syn. *Dryopteris robertiana* (Hoffm.) C. Chr., *Gymnocarpium dryopteris* (L.) Newm. var. *pumilum* (DC.) Boivin)

Sources	CAN, DAO, GH, MT; Bouchard *et al.* 1986, Lellinger 1985, Rouleau (unpublished maps).
Range	Ont, Que, NB, Nfld, south to Minn, nelowa to Pa and NY (Pryer & White 1983); Eurasia (Sarvela *et al.* 1981).
Nfld	White Bay North; St. Barbe South; Humber West; Humber East; Port au Port.
Map	Cody & Britton 1989; Couillard *et al.* 1988; Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild & Cody 1980; Pryer 1981; Pryer & White 1983; Sarvela *et al.* 1981.
Habitat	Talus and ledges of limestone cliffs.
Ecoregions	IB, IC, IX
Status	Rare in Canada N3. Rare in Manitoba,Ontario, Quebec, New Brunswick.
Nfld rarity	S2

Gymnocarpium dryopteris var. **pumilum** = **Gymnocarpium robertianum**

Habenaria albida var. **straminea** = **Platanthera albida** var. **straminea**

Habenaria fimbriata = **Platanthera grandiflora**

Habenaria hookeri = **Platanthera hookeri**

Habenaria hookeri var. **abbreviata** = **Platanthera hookeri**

Habenaria macrophylla = **Platanthera orbiculata** var. **macrophylla**

Habenaria orbiculata var. **macrophylla** = **Platanthera orbiculata** var. **macrophylla**

Habenaria psycodes var. **grandiflora** = **Platanthera grandiflora**

Habenaria straminea = **Platanthera albida** var. **straminea**

Habenaria viridis var. **interjecta** = **Coeloglossum viride** var. **viride**

Hedysarum boreale Nutt. ssp. **mackenzii** (Richards.) Welsh
(Syn. *Hedysarum mackenzii* Richards.)

Sources	CAN, DAO, GH, MT, NFLD; Marie-Victorin & Rolland-Germain 1969, Rollins 1940, Rouleau (unpublished maps).
Range	Alas-Y-Mack-K-Banks Is., Victoria Is., Bf, Alta, disjunct eastward in nmost, Man, Ont, Que and wNfld (Scoggan 1978-79 emend.).
Nfld	Port au Port (Cape St. George).
Map	Hultén 1968; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980; Raup 1947.
Habitat	Exposed gravelly and turfy limestone barrens.
Ecoregions	IC
Status	Rare in Quebec.
Nfld rarity	S1
Notes	Known from only one locality where it was first collected by K. Mackenzie and L. Griscom in 1922. Relocated in 1986.

Hedysarum mackenzii = **Hedysarum boreale** ssp. **mackenzii**

Hieracium groenlandicum Arv.-Touv.
(Syn. *Hieracium plicatum* Lindl. ssp. *groenlandicum* (Arv.-Touv.) Zahn)

Sources	CAN, GH, MT; Morisset *et al.* 1987, Rouleau (unpublished maps).
Range	n/eQue, Lab and nNfld; G (Fernald 1950).
Nfld	White Bay North; St. Barbe North; St. Barbe South.
Map	Lepage 1971.
Habitat	Limestone or slaty cliffs, talus or stream banks.
Ecoregions	IX
Nfld rarity	S1

Hieracium robinsonii (Zahn) Fern.
(Syn. *Hieraceum smolandicum* (Almq. ex Dahlst.) Dahlst. ssp. *robinsonii* Zahn)

SOURCES CAN, GH; Rouleau (unpublished maps).
RANGE Que, NS and seNfld, to Me and NH (Scoggan 1978-79).
NFLD Harbour Main (Holyrood); St. John's South (Waterford River).
MAP Lepage 1960, 1971.
HABITAT Ledges, crevices and gravels along rivers.
ECOREGIONS V, VIB
NFLD RARITY SH
NOTES Holyrood, South Arm River, is the type locality of this taxon (Zahn 1921). Known from only two localities where it was collected by B.L. Robinson and H. Schrenk in 1894, and M.L. Fernald and K.M. Wiegand in 1911. It has not been relocated since.

Hieraceum smolandicum ssp. **robinsonii = Hieracium robinsonii**

Hieracium plicatum ssp. **groenlandicum = Hieracium groenlandicum**

Hordeum boreale = Hordeum brachyantherum

Hordeum brachyantherum Nevski
(Syn. *Critesion brachyantherum* (Nevski) Barkw. & D. R. Dewey, *Hordeum boreale* Scribn. & Sm., non Gandoger, *Hordeum jubatum* L. var. *boreale* (Scribn. & Sm.) Boivin)

SOURCES CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE Aleutian Is.-cAlas-cY-BC-Alta; isolated in the Cypress Hills of seAlta and swSask; disjunct eastward in sLab, nwNfld; eAsia (Scoggan 1978-79 emend.).
NFLD White Bay North; St. Barbe North.
MAP Fernald 1925a; Hultén 1968; Meusel *et al.* 1965.
HABITAT Gravelly beaches, about high tide limit.
ECOREGIONS IVC, IX
STATUS Rare in Alberta, Saskatchewan.
NFLD RARITY S2
NOTES Baum (1978) has suggested that the supposed disjunct populations in eastern Canada belong to a different species, *H. secalinum* Schreb., introduced from western Europe.

Hordeum jubatum var. **boreale = Hordeum brachyantherum**

Hudsonia ericoides L.

SOURCES CAN, CDFN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE Nfld, SPM, PEI and NS to Del and SC (Scoggan 1978-79).
NFLD St. George's; Fogo; Bay de Verde; St. Mary's; Burin; Hermitage; Burgeo and La Poile.
MAP Fernald 1918b.
HABITAT Exposed heath barrens near the coast.
ECOREGIONS III, VIB, VIC, VII, VIIIA
NFLD RARITY S2
NOTES Incouspicuous and easily overlooked.

Hutchinsia procumbens = Hymenolobus procumbens

Hydrocotyle americana L.

SOURCES GH; Kennedy 1930, Rouleau (unpublished maps).
RANGE Minn-Ont, Que, NB, PEI, NS and swNfld, south to Tenn and NC (Scoggan 1978-79).
NFLD St. George's (Barachois Brook and Robinson's Brook).
HABITAT River banks.
ECOREGIONS ID
NFLD RARITY SH
NOTES Known from only two localities. Collected by R.B. Kennedy in 1929 and 1930; it has not been relocated since.

Hymenolobus procumbens (L.) Nutt. ex Torr. & Gray
(Syn. *Hutchinsia procumbens* (L.) Desv.)

SOURCES	CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	sBC to Cal and Colo, farther eastwards from sSask, neMan, sLab and nwNfld; Chile; Eurasia; nAfrica; Australia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North.
HABITAT	Slaty rocks and gravelly beaches near high tide limit.
ECOREGIONS	IVC, IX
STATUS	Rare in Canada N2. Rare in British Columbia, Saskatchewan.
NFLD RARITY	S2

Hypericum ellipticum Hook.

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Ont-Que, NB, NS, and Nfld, south to NDak, Iowa, Ohio and Md (Scoggan 1978-79).
NFLD	St. George's; St. John's North; St. John's South.
MAP	Gillett & Robson 1981.
HABITAT	Marshy alluvial shores.
ECOREGIONS	ID, IE, VIA, VIB
NFLD RARITY	S2

Impatiens pallida Nutt.

SOURCES	DAO, GH, MT; Kennedy 1930, Rouleau (unpublished maps).
RANGE	sOnt-Que, NB, NS, and swNfld, south to Kan, Mo, Tenn and Ga (Scoggan 1978-79).
NFLD	St. George's (Crabbes Brook, Tompkins).
MAP	Rousseau 1974 (Que).
HABITAT	Moist alluvial soils.
ECOREGIONS	ID, IE
STATUS	Rare in New Brunswick.
NFLD RARITY	SH
NOTES	Known from two localities. Collected by R.B. Kennedy in 1929, and by I.J. Bassett in 1949; it has not been relocated since.

Isoetes acadiensis Kott

SOURCES	MT, OAC; D.M. Britton (pers. comm.), Hay *et al.* 1990.
RANGE	NB, NS, Nfld; Me, Mass, Vt and NH (Kott 1981 emend.).
NFLD	St. Mary's (Salmonier area).
MAP	Cody & Britton 1989; Kott 1981.
HABITAT	Shallow ponds.
ECOREGIONS	V
STATUS	Rare in New Brunswick.
NFLD RARITY	S1
NOTES	Taxon recently described by Kott (1981).Known only from the area of Salmonier, where it was found by D.M. Britton in 1981.

Juncus dudleyi = Juncus tenuis var. **dudleyi**

Juncus longistylis Torr.

SOURCES	CAN, DAO, GH, MT; Kennedy 1931, Rouleau (unpublished maps).
RANGE	BC-Alta, Sask, Man, Ont, Que and wNfld, south to Cal, NMex, Neb and nMich (Scoggan 1978-79).
NFLD	Humber West; St. George's.
MAP	Dutilly *et al.* 1954.
HABITAT	Open gravelly alluvial shores.
ECOREGIONS	IB, ID
STATUS	Rare in Quebec.
NFLD RARITY	S1

Juncus nodosus L.

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	cAlas and nBC-Great Bear Lake, L. Athabasca (Alta and Sask), Ont, Que, NB, PEI, NS and Nfld, south to Cal, NMex, Tex, Mo and Va (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Humber East; St. George's; Port au Port.
MAP	Hultén 1968; Porsild & Cody 1980.
HABITAT	Open wet sandy, gravelly or peaty shores; fens.
ECOREGIONS	IA, IB, IC, ID
NFLD RARITY	S2
NOTES	A record for White Bay North (Rouleau, unpublished maps) could not be substantiated.

Juncus subcaudatus (Engelm.) Coville & Blake
(Syn. *Juncus subcaudatus* (Engelm.) Coville & Blake var. *planisepalus* Fern.)

SOURCES	DAO, GH, MT; Hay 1984, Hay *et al.* 1990.
RANGE	NS-Nfld; southward coastwise from Mass to Va, inland from Pa through mts to nGa, isolated in Mo (Hay 1984).
NFLD	Green Bay; Grand Falls; St. Mary's.
MAP	Hay (ined.); Roland & Smith 1969 (NS).
HABITAT	Shores and boggy thickets along rivers.
ECOREGIONS	IIA, VII
NFLD RARITY	SH
NOTES	Recent addition (Hay *et al.* 1990).

Juncus subtilis E. Meyer

SOURCES	CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	Ont-Que, NB, Nfld, south to scOnt, sQue and ncMe; G (Scoggan 1978-79).
NFLD	Humber East; St. George's; Grand Falls.
MAP	Böcher 1938; Fernald 1934a; Lepage 1966; Marie-Victorin 1925c.
HABITAT	Wet open sandy shores of ponds and pools.
ECOREGIONS	IB, ID, IIA
STATUS	Rare in New Brunswick.
NFLD RARITY	S2

Juncus subcaudatus var. **planisepalus** = **Juncus subcaudatus**

Juncus tenuis Willd. var. **dudleyi** (Wieg.) Hermann
(Syn. *Juncus tenuis* Willd. var. *uniflorus* (Farw.) Farw., *Juncus dudleyi* Wieg.)

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	sY and Mack-BC, Alta, Sask, Man, Ont, Que, NB, PEI, NS, Lab and wNfld, south to Cal, Ariz, Tex, Okla, Mo, Tenn and Va (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Humber East; St. George's.
MAP	Porsild & Cody 1980.
HABITAT	Alluvial shores and marshes.
ECOREGIONS	IA, IB, ID, IE
NFLD RARITY	S2

Juncus tenuis var. **uniflorus** = **Juncus tenuis** var. **dudleyi**

Lesquerella arctica (Wormskj. ex Hornem.) S.Wats., s.lat.
(Syn. *Lesquerella purshii* (S. Wats.) Fern., *Lesquerella arctica* (Wormskj.) S.Wats. var. *purshii* S.Wats.)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-K to Banks Is., Melville Is., Ellesmere Is., south to mts of BC and swAlta, nMan, eQue (Anticosti Is.), wNfld, nLab; G; arctic Asia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West; Humber East; Post au Port.
MAP	Aggregate sp.: Porsild 1964; Fernald 1918b, 1925a, 1929; Hultén 1968, 1971; Porsild & Cody 1980; Rollins & Shaw 1973; Wood 1972.
HABITAT	Limestone cliffs, talus and gravelly barrens.
ECOREGIONS	IB, IC, IVA, IX
STATUS	Rare in British Columbia, Alberta, Manitoba, Quebec.
NFLD RARITY	S2
NOTES	The species is here treated in an inclusive sense (Rollins & Shaw 1973). Both var. *arctica* and var. *purshii* have been reported for Newfoundland.

Lesquerella arctica var. **purshii** = **Lesquerella arctica**

Lesquerella purshii = **Lesquerella arctica**

Leucorchis albida ssp. **straminea** = **Platanthera albida** var. **straminea**

Limonium carolinianum (Walt.) Britt.
(Syn. *Limonium nashii* Small)

SOURCES	CAN, MT, NFLD; Rouleau (unpublished maps).
RANGE	eQue, NB, PEI, NS, and Nfld; south to Fla and Tex (Scoggan 1978-79).
NFLD	Port au Port; St. George's; Lewisporte; Fogo; Bonavista South.
MAP	Fleurbec 1985; Hultén 1958; Thannheiser 1981, 1984.
HABITAT	Upper limit of tidal flats.
ECOREGIONS	IC, ID, III
NFLD RARITY	S2
NOTES	First discovered by Bachelot de La Pylaie in 1820 at Bay St. George's. Salt marsh habitats are scarce in Newfoundland.

Limonium nashii = Limonium carolinianum

Limosella aquatica L.

SOURCES	GH, MT; Rouleau (unpublished maps).
RANGE	wAleutian Is. and Alas to s/cY, Great Bear L., nAlta, Sask, Man, Ont, Que, Lab and Nfld, south to Cal, NMex, Minn; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	Hermitage (Harbour Breton).
MAP	Hultén 1958, 1968; Hultén & Fries 1986; Meusel 1943; Meusel *et al.* 1978; Pennell 1935; Porsild & Cody 1980; Riley & McKay 1980; White & Maher 1983.
HABITAT	Shallow fresh pool back of beach.
ECOREGIONS	VIC
STATUS	Rare in Yukon, Northwest Territories, British Columbia, Ontario.
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by M.L. Fernald, B. Long and B. Dunbar in 1924; it has not been relocated since.

Limosella australis R.Br.
(Syn. *Limosella subulata* Ives)

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	Que to NB, PEI, NS and Nfld, south along the Atlantic coast to Va (Scoggan 1978-79).
NFLD	Lewisporte (Norris Arm); Carbonear (Carbonear).
MAP	Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1978; Pennell 1935.
HABITAT	Brackish shallow water or mud along shorelines.
ECOREGIONS	IIA, VIA
NFLD RARITY	S1
NOTES	Known from only two localities. First collected by M.L. Fernald and K.M. Wiegand in 1911. Relocated in 1988.

Limosella subulata = Limosella australis

Listera borealis Morong

SOURCES	GH; Rouleau (unpublished maps).
RANGE	cAlas-Y-Mackenzie R. Delta, Great Bear L., Alta, Sask, Man, nmost Ont, Que and nNfld; south in the West to sBC, nWash, Ida, Mont, Wyo and Utah (Scoggan 1978-79).
NFLD	St. Barbe South (Eddy's Cove).
MAP	Catling *et al.* 1982, Dutilly *et al.* 1953 (neCanada); Hultén 1968; Luer 1975; Marie-Victorin 1938; Porsild & Cody 1980; Raup 1947; Raymond 1950a.
HABITAT	Spruce woods and thickets on limestone.
ECOREGIONS	IX
STATUS	Rare in Saskatchewan, Ontario.
NFLD RARITY	SH
NOTES	Known from only one locality. Discovered by M.L. Fernald, B. Long and J.M. Fogg in 1929 (one specimen); it has not been relocated since.

Luzula acuminata Raf.
(Syn. *Luzula saltuensis* Fern., *Luzula pilosa* (L.) Willd. var. *saltuensis* (Fern.) Boivin)

SOURCES DAO, GH, NFLD; Rouleau (unpublished maps).
RANGE Alta-Sask, Man, Ont, Que, NB, PEI, NS, SPM, sNfld, south to SDak, Ind, nAla and nGa (Scoggan 1978-79 emend.).
NFLD St. George's (Tompkins, Saddle Mountain); Placentia East (Cape St. Mary's).
MAP Ebinger 1962, 1964; Hultén 1962; Hultén & Fries 1986.
HABITAT Turfy places above tree-line or on coastal barrens.
ECOREGIONS VII, VIIIA
STATUS Rare in Alberta.
NFLD RARITY S1
NOTES Known from only two localities. Collected by A.S. Pease and Edgerton in 1939, and by G.R. Brassard in 1978.

Luzula pilosa var. **saltuensis = Luzula acuminata**

Luzula saltuensis = Luzula acuminata

Lycopodiella appressa = Lycopodium appressum

Lycopodium alpinum L.
(Syn. *Diphasium alpinum* (L.) Rothm., *Diphasiastrum alpinum* (L.) Holub)

SOURCES CAN, MT; Bouchard & Hay 1974, Bouchard *et al.* 1986.
RANGE Aleutian Is., ncAlas-Y-wMack-BC-wAlta; nQue-Lab, isolated in eQue (Shickshock Mts) and wNfld; isolated in nWash and nMont; G; Iceland; Eurasia.
NFLD St. Barbe South (Gros Morne National Park).
MAP Cody & Britton 1989; Hultén 1958,1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild & Cody 1980; Raup 1947; Wilce 1965.
HABITAT Alpine snowbeds and ravines.
ECOREGIONS VIIIC
NFLD RARITY S1
NOTES Bouchard & Hay (1974) added this species to the flora of Newfoundland. Such alpine species may be undercollected in the Long Range Mountains.

Lycopodium appressum (Chapm.) Lloyd & Underw.
(Syn. *Lycopodium inundatum* L. var. *appressum* Chapm., *Lycopodium inundatum* L. var. *bigelovii* Tuckerm., *Lycopodiella appressa* (Lloyd & Underw.) Cranfill)

SOURCES GH, MT, OAC; D.M. Britton (pers. comm.).
RANGE NS-Nfld; eFla west to wKy, eArk, eTex and seOkla, northeast to Mass, seNH; on the coastal plain; disjunct at scattered localities in Ky, Tenn, mts of NC and swMich (Lellinger 1985).
NFLD Grand Falls; Harbour Main; Ferryland; Placentia West; Hermitage; Burgeo and La Poile.
MAP Cody & Britton 1989; Hultén & Fries 1986.
HABITAT Margins of pools or shallow depressions in fens, bogs and peaty barrens.
ECOREGIONS V, VIB, VIC, VID, VII, VIIIB
NFLD RARITY S2
NOTES May be confused with *L. inundatum*. The taxon segregated in the past as *L. inundatum* var. *bigelovii* is now considered to represent northern populations of *L. appressum* (Beitel 1979). Hybridization occurs in the *L. inundatum* complex, confusing the species delimitations (Bruce 1975, Lellinger 1985).

Lycopodium complanatum var. **flabelliforme = Lycopodium digitatum**

Lycopodium digitatum Dillen. ex A. Braun
(Syn. *Lycopodium flabelliforme* (Fern.) Blanch., *Lycopodium complanatum* L. var. *flabelliforme* Fern., *Diphasiastrum digitatum* (A.Braun) Holub)

SOURCES CAN, GH, MT, NFLD; Hickey & Beitel 1979.
RANGE Ont-Nfld, south to Va, mts of NC, Tenn, Ala, Ga, Pa, Ohio, Ind, Ill, wKy, Iowa and Minn (Lellinger 1985).
NFLD Trinity South; Harbour Main; St. John's North; St. John's South; Placentia East (Argentia).
MAP Cody & Britton 1989; Hultén 1962; Hultén & Fries 1986; Marie-Victorin 1925a; Wilce 1965.
HABITAT Dry exposed barrens.
ECOREGIONS V, VIA, VIB
NFLD RARITY S2

Lycopodium flabelliforme = Lycopodium digitatum

Lycopodium inundatum var. **appressum = Lycopodium appressum**

Lycopodium inundatum var. **bigelovii = Lycopodium appressum**

Lysimachia thyrsiflora L.

SOURCES CDFN, MT, CAN; Hay *et al.* 1990.
RANGE wAleutian Is. and Alas to Mackenzie R. Delta, Great Slave L., L. Athabasca, Man, Ont, Que, NB, PEI, NS, wNfld; south to Cal, Colo, Mo, WVa; Eurasia (Scoggan 1978-79 emend.).
NFLD Humber East (Deer Lake Park, Upper Humber River).
MAP Hultén 1968; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild & Cody 1980; Ray 1956.
HABITAT Marshy alluvial shorelines.
ECOREGIONS IB
NFLD RARITY S1
NOTES Known from only two localities where it was collected by I.J. Green in 1972 and by A. Bouchard, S. Hay and L. Brouillet in 1988.

Maianthemum racemosum (L.) Link ssp. **racemosum**
(Syn. *Smilacina racemosa* (L.) Desf.)

SOURCES CAN, MT; Rouleau 1964, Rouleau (unpublished maps).
RANGE Que westward through Ont to sMan; w limit extending s to Okla; NB, NS, wNfld, s through SC to mts of Ga; southern limit extending west through ncAla to nMiss (La Frankie 1986 emend.).
NFLD Humber West (Lewis Hills); St. George's (Mollichicgneck Brook).
MAP Galway 1945; Hultén 1968; La Frankie 1986.
HABITAT Alder thickets along shores.
ECOREGIONS IA, IE
STATUS Rare in Saskatchewan, Manitoba.
NFLD RARITY S1
NOTES Known from only two localities. Collected by A.W.H. Damman in 1961 and by E. Rouleau in 1962. Relocated in 1986.

Malaxis brachypoda = Malaxis monophyllos var. **brachypoda**

Malaxis monophyllos (L.) Swartz var. **brachypoda** (A. Gray) Morris & Eames
(Syn. *Malaxis brachypoda* (A. Gray) Fern.)

SOURCES CAN, GH, MT; R. Etcheberry (pers. comm.), Rouleau (unpublished maps).
RANGE eAleutian Is. and sAlas-BC, Alta, Sask, Man, Ont, Que, NB, NS, Nfld and seLab, south to Cal, Tex, Ind and NJ and in mts to Tenn (Scoggan 1978-79 emend.).
NFLD St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port; Fortune Bay.
MAP Hultén 1962, 1968; Hultén & Fries 1986; Luer 1975; Porsild & Cody 1980; Riley & McKay 1980.
HABITAT Fens and moist limestone barrens, talus and ledges.
ECOREGIONS IB, IC, IVA, VIC, IX
STATUS Rare in British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia.
NFLD RARITY S2

Milium effusum L. var. **cisatlanticum** Fern.

Sources	CAN, CDFN, GH, MT; Rouleau (unpublished maps).
Range	Sask-Ont, Que, NB, NS, Nfld, south to SDak, nIll, nInd, Ohio and Md.
Nfld	St. Barbe North; St. Barbe South; St. George's.
Map	Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965.
Habitat	Moist thickets.
Ecoregions	ID, IE, IVA
Status	Rare in Saskatchewan.
Nfld rarity	S2
Notes	Hultén & Fries (1986) regard the American plant as distinct from the Eurasian one.

Minuartia dawsonensis (Britt.) House
(Syn. *Arenaria dawsonensis* Britt., *A. stricta* Michx. ssp. *dawsonensis* (Britt.) Maguire)

Sources	CAN, CDFN, GH, MT, NFLD; Rouleau (unpublished maps).
Range	ncAlas-Y-Great Bear L., L. Athabasca (Alta and Sask), Man, nmost Ont, Que and Nfld; south to BC, Alta, Minn, sOnt and eQue (Scoggan 1978-79).
Nfld	St. Barbe North; St. Barbe South; Humber East; Port au Port; Green Bay.
Map	Hultén 1968; Morisset 1979; Porsild & Cody 1980; Raup 1947.
Habitat	Limestone cliffs, talus and barrens.
Ecoregions	IB, IC, III, IVA, IX
Status	Rare in British Columbia.
Nfld rarity	S2

Minuartia marcescens (Fern.) House
(Syn. *Arenaria marcescens* Fern., *Arenaria laricifolia* (L.) B.L. Robins. var. *marcescens* (Fern.) Boivin)

Sources	CAN, CDFN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	Que (mt Albert) wNfld; Vt (Fernald 1950 emend.).
Nfld	St. Barbe South; Humber West.
Map	Hultén 1968; Hultén & Fries 1986; Fernald 1924b, 1925a.
Habitat	Serpentine barrens and scree slopes.
Ecoregions	IA
Status	Rare in Canada N1. Rare in Quebec.
Nfld rarity	S2
Notes	Geographically restricted, but common in its habitat.

Mitchella repens L.

Sources	CAN, CDFN, GH, MT, NFLD, R.M. Etcheberry (pers. herb.); Rouleau (unpublished maps).
Range	Minn-Ont, Que, NB, PEI, NS, SPM, and sNfld, south to Tex and Fla (Scoggan 1978-79).
Nfld	St. George's; Burin; Fortune Bay; Hermitage; Burgeo and La Poile.
Map	Rousseau 1974 (Que).
Habitat	Dry heath scrub; dwarf spruce thickets.
Ecoregions	IE, VIB, VIC
Nfld rarity	S1

Myrica pensylvanica Loisel. ex Duhamel

Sources	CAN, DAO, GH, MT, NFLD, R.M. Etcheberry (pers. herb.); Hall 1975, Rouleau (unpublished maps).
Range	eQue, NB, PEI, NS, SPM, sNfld, south along Atlantic coast to NC; an inland station in swOnt (Scoggan 1978-79).
Nfld	Humber West; Burin; Fortune Bay; Hermitage.
Map	Fleurbec 1985; Hall 1975; Keddy 1984a.
Habitat	Sand dunes and coastal ericaceous barrens (Burin, Fortune Bay, Hermitage), and larch fens on serpentine (Humber West).
Ecoregions	IA, VIB VIC
Status	Rare in Ontario, Quebec.
Nfld rarity	S2

Myriophyllum exalbescens = Myriophyllum sibiricum

Myriophyllum farwellii Morong

SOURCES	CAN, MT, NASC; Hay *et al.* 1990, C.B. Hellquist (pers. comm.).
RANGE	Ont to Que, NB, NS, and eNfld, south to nMinn, nMich, NY and New England; isolated in BC (Scoggan 1978-79 emend.).
NFLD	Harbour Main.
HABITAT	Shallow margin of oligotrophic pond, in a bog.
ECOREGIONS	V
STATUS	Rare in British Columbia, Nova Scotia.
NFLD RARITY	S1
NOTES	Known from only one locality. First collected by G.E. Crow and B.C. Hellquist in 1979; colonies were relocated in 1988. Such aquatic species may be undercollected.

Myriophyllum magdalense = Myriophyllum sibiricum

Myriophyllum sibiricum Komarov
(Syn. *Myriophyllum exalbescens* Fern., *Myriophyllum magdalense* Fern., *Myriophyllum spicatum* L. var. *exalbescens* (Fern.) Jeps.)

SOURCES	CAN, GH, MT, NASC; C.B. Hellquist (pers. comm.), Rouleau (unpublished maps).
RANGE	n-cAlas-Y-Mackenzie R. Delta-Great Bear L., L. Athabasca (Alta and Sask), Man, Ont, wBaffin Is., Que, NB, PEI, NS, SPM, Nfld, and Lab, south to sCal, Ariz, Kan, Minn, Ohio and Md; wG; eAsia (Scoggan 1978-79 emend.).
NFLD	St. Barbe North; St. Barbe South; Port au Port.
MAP	Hultén 1968, 1971; Hultén & Fries 1986; Fleurbec 1987; Löve 1954; Patten 1954; Porsild & Cody 1980.
HABITAT	Shallow ponds on limestone.
ECOREGIONS	IC, IVA, IX
NFLD RARITY	S2
NOTES	Ceska & Ceska (1986), and Aiken & Cronquist (1988) have proposed to take up *M. sibiricum* as the legitimate name for this taxon, which has heretofore gone under the name of *M. exalbescens* .

Myriophyllum spicatum var. **exalbescens = Myriophyllum sibiricum**

Myriophyllum verticillatum L.

SOURCES	CAN, DAO, GH, MT, NASC; C.B. Hellquist (pers. comm.).
RANGE	Nfld west to Alas, south to NS, Conn, Del, Md, the Great Lakes States, neTex, Utah and Cal; Eurasia (Crow & Hellquist 1983).
NFLD	St. Barbe South; Humber East; Port au Port; St. George's; Grand Falls.
MAP	Hultén 1968, 1971; Meusel *et al.* 1978; Porsild & Cody 1980.
HABITAT	Shallow ponds or deadwaters of rivers.
ECOREGIONS	IB, ID, IIA, IVA
STATUS	Rare in Yukon.
NFLD RARITY	S1
NOTES	Such aquatic species may be undercollected.

Najas flexilis (Willd.) Rostk. & Schmidt

SOURCES	GH, MT, NASC; Rouleau (unpublished maps).
RANGE	sMack, BC to nAlta, Sask, seMan, Ont, Que, NB, NS, Nfld, south to Cal, SDak, Iowa and NC; Eurasia (Scoggan 1978-79 emend.).
NFLD	St. Barbe South; St. George's; Grand Falls; Gander.
MAP	Dansereau 1957; Fernald 1929; Haynes 1979; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965.
HABITAT	Ponds or still pools
ECOREGIONS	ID, IIA, IIB, IVA
STATUS	Rare in Saskatchewan.
NFLD RARITY	S1
NOTES	*Najas flexilis* is a submersed annual that is easily overlooked and may be undercollected.

Nymphoides cordata (Ell.) Fern.

SOURCES CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE cOnt-swQue, NB-NS, scNfld, westward to Wis, southward along the Atlantic coast to La, Fla (Scoggan 1978-79, emend.).
NFLD Grand Falls; Trinity South; St. Mary's; Burgeo and La Poile.
MAP Gillett 1963.
HABITAT Shallow water at the margin of ponds.
ECOREGIONS IIA, VIB, VIC
NFLD RARITY S1
NOTES May form large populations.

Omalotheca norvegica = Gnaphalium norvegicum

Omalotheca supina = Gnaphalium supinum

Orchis rotundifolia = Amerorchis rotundifolia

Oreopteris limbosperma = Thelypteris quelpaertensis

Oreopteris quelpaertensis = Thelypteris quelpaertensis

Oryzopsis canadensis (Poir.) Torr.

SOURCES CAN, GH, MT; Rouleau (unpublished maps).
RANGE BC-Alta, Sask, Man, Ont, Que, NB, PEI, NS, swLab, Nfld, south to Cal, NMex, Minn, Mich and NH (Scoggan 1978-79 emend.).
NFLD St. Barbe South; Humber West; St. George's; Burgeo and La Poile; Grand Falls.
MAP Raymond 1953a.
HABITAT Open talus on gneiss, granite, diorite and gabbro; rocky shores.
ECOREGIONS IA, IIB, VIC, VIIIA, VIIIB
STATUS Rare in British Columbia, Alberta, Manitoba, Nova Scotia.
NFLD RARITY S2

Osmorhiza chilensis Hook. & Arn.
(Syn. *Osmorhiza divaricata* Nutt. ex Britt.)

SOURCES CDFN, DAO, GH; Rouleau (unpublished maps).
RANGE eAleutian Is. and sAlas to BC, swAlta, swSask, s?Man, Ont, Que, NB, NS, and wNfld, south to sCal, Colo, SDak, Wis, Mich and Me; SAmerica (Scoggan 1978-79).
NFLD St. Barbe South (Doctor Hill); Humber West (Frenchman's Cove)
MAP Constance 1963; Constance & Shan 1948; Fernald 1925a; Hultén 1968; Lowry & Jones 1984; Marquis 1981 (Great Lakes); Thorne 1972.
HABITAT Edge of coniferous woods on limestone.
ECOREGIONS IB, IVA
STATUS Rare in Alberta (var. purpurea (Coult. & Rose) Boivin).
NFLD RARITY S1
NOTES Known from only two localities: Highlands of St. John, where collected by M.L. Fernald and B. Long in 1925, and by A.W.H. Damman in 1965, and Frenchman's Cove, by A.C. Waghorne in 1895. Records from east of the province (map, Lowry & Jones 1984) not substantiated.

Osmorhiza chilensis var. **cupressimontana = Osmorhiza depauperata**

Osmorhiza depauperata Phil.
(Syn. *Osmorhiza obtusa* (Coult. & Rose) Fern., *O. chilensis* Hook. & Arn. var. *cupressimontana* Boivin)

SOURCES CAN, CDFN, GH, MT; Rouleau (unpublished maps).
RANGE seAlas, swMack, BC-Alta to Sask, sMan, Ont, Que, NB, NS, sLab, and Nfld, south to Cal, NMex, SDak, Minn, Mich and Vt; SAmerica (Scoggan 1978-79).
NFLD St. Barbe North; St. Barbe South; Humber West; Humber East; Port-au-Port; St. George's; Twillingate.
MAP Constance 1963; Constance & Shan 1948; Hulten 1968; Lowry & Jones 1984; Porsild & Cody 1980; Wood 1972.
HABITAT Edge of coniferous woods and thickets.
ECOREGIONS IB, IC, IE, III, IVA, IX
STATUS Rare in Yukon, Northwest Territories, Nova Scotia.
NFLD RARITY S2

Osmorhiza divaricata = Osmorhiza chilensis

Osmorhiza obtusa = Osmorhiza depauperata

Oxalis acetosella ssp. **montana = Oxalis montana**

Oxalis montana Raf.
(Syn. *Oxalis acetosella* L. ssp. *montana* (Raf.) Hult. ex D. Löve)

Sources	GH, MT, NFLD; Rouleau (unpublished maps).
Range	Ont-Que, NB, PEI, NS, SPM, sNfld, and Lab, south to Minn, Wis, Tenn and NC (Scoggan 1978-79).
Nfld	Burgeo and La Poile (Cinq-Cerf Bay and Grandys River).
Map	Braun 1937; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1978.
Habitat	Alder-maple thickets and balsam fir forests in sheltered river valleys.
Ecoregions	VIC
Nfld rarity	S1
Notes	Known from only two localities. First collected by Heyl in 1938. Relocated in 1989.

Oxyria digyna (L.) Hill

Sources	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	Aleutian Is. and coasts of Alas-Y-Mack-K throughout the Canadian Arctic Archipelago to nmost Ellesmere Is. and nmost Ungava-Lab, south to sAlas-Y, Great Bear L., s/cK, Que, neNS, sLab, Nfld and mts of NH and mts of the West to sCal, Ariz and NMex; circumgreenlandic; Eurasia (Scoggan 1978-79).
Nfld	White Bay North; St. Barbe North; St. Barbe South; Port au Port; St. George's; Hermitage.
Map	Billings 1974; Fernald 1933; Hultén 1968, 1971; Hultén & Fries 1986; Meusel *et al.* 1965; Miller 1980; Mooney & Billings 1961; Porsild 1955; Porsild 1964; Porsild & Cody 1980; Raup 1947; Young 1971.
Habitat	Snowbeds, ravines, and river gravels.
Ecoregions	IC, IE, VIC, VIIIA, VIIIC, IX
Status	Rare in Nova Scotia.
Nfld rarity	S2
Notes	Such alpine species may be undercollected in the Long Range Mountains.

Oxytropis deflexa var. **capitata = Oxytropis deflexa** var. **foliolosa**

Oxytropis deflexa (Pallas) DC. var. **foliolosa** (Hook.) Barneby
(Syn. *Oxytropis deflexa* (Pallas) DC. var. *capitata* Boivin, *Oxytropis foliolosa* Hook.)

Sources	CAN, DAO, GH, MT, NFLD; Fernald 1928b, Rouleau (unpublished maps).
Range	Alas-Y, Mack, Baffin Is., nmost Que-Lab; southwards in mts through BC-wAlta to Wyo and Utah; disjunct eastwards in nMan, nOnt, eQue (Gaspé) and nwNfld (Gillett 1984).
Nfld	White Bay North; St. Barbe North; Humber West.
Map	Barneby 1952; Fernald 1933; Gillett 1984; Hultén 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980.
Habitat	Turfy gravelly limestone barrens and talus.
Ecoregions	IB, IX
Status	Rare in Northwest Territories, Ontario, Quebec.
Nfld rarity	S2

Oxytropis foliolosa = Oxytropis deflexa var. **foliolosa**

Parnassia glauca Raf.

SOURCES	CAN, CDFN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Sask to Man, Ont, Que, NB, and wNfld, south to SDak, Ill, Ohio and New England (Scoggan 1978-79).
NFLD	St. Barbe South; Humber East.
HABITAT	Calcareous alluvial shores and fens.
ECOREGIONS	IB, IVA
STATUS	Rare in Saskatchewan.
NFLD RARITY	S2

Parnassia kotzebuei Cham. & Schlecht.

SOURCES	CAN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	Coasts Alas-Y-Mack-K to smost Baffin Is. and nmost Ungava-Lab, south in the West through BC and swAlta to Wash, Nev and Wyo, farther eastwards south to Great Slave L., nSask, cMan, cOnt, islands in James Bay, Que, Lab and nwNfld; wG; neSiberia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Fernald 1925a; Hultén 1968; Keddy 1987a; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Moist cliffs, alpine ravines and snowbeds.
ECOREGIONS	VIIIC, IX
STATUS	Rare in Saskatchewan, Ontario.
NFLD RARITY	S2

Pedicularis flammea L.

SOURCES	CAN, CDFN, GH, MT; Rouleau (unpublished maps).
RANGE	Great Bear L. and the coasts of Mack-K to Devon Is., Baffin Is., and nmost Ungava-Lab, south to wAlta, neMan, nOnt, Que and nwNfld; Iceland; nNorway (Scoggan 1978-79).
NFLD	St. Barbe North.
MAP	Gjaerevoll 1963; Hultén 1958, 1961, 1968; Hultén & Fries 1986; Meusel *et al.* 1978; Packer & Vitt 1974; Porsild 1964; Porsild & Cody 1980.
HABITAT	Damp depressions in limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Northwest Territories, Alberta, Manitoba.
NFLD RARITY	S1

Phleum alpinum L.
(Syn. *Phleum alpinum* L. var. *americanum* Fourn., *Phleum commutatum* Gaudin var. *americanum* (Fourn.) Hult.)

SOURCES	CAN, CDFN, DAO, GH, MT; Rouleau (unpublished maps).
RANGE	Aleutian Is. and cAlas-Y-wMack through BC and swAlta to Cal and NMex; nOnt and nMich; Que, nNB, NS, SPM, Nfld and Lab, south in the mts to NH and nMe; Mexico; SAmerica; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Böcher 1954; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Nordenskjöld 1945; Porsild & Cody 1980; Riley 1984c; Rousseau 1974.
HABITAT	Open turfy limestone or quartzite barrens; snowbeds and alpine meadows.
ECOREGIONS	IB, IVA, VIIIC, IX
STATUS	Rare in Northwest Territories, Saskatchewan, Ontario, New Brunswick, Nova Scotia.
NFLD RARITY	S2
NOTES	Such alpine species may be undercollected in the Long Range Mountains.

Phleum alpinum var. **americanum** = **Phleum alpinum**

Phleum commutatum var. **americanum** = **Phleum alpinum**

Pinus resinosa Ait.

SOURCES	CAN, DAO, GH, MT, NFLD; Damman 1976, Roberts 1985,1989, Rouleau (unpublished maps).
RANGE	seMan-Ont, Que, NB, PEI, NS, Nfld, south to Minn, Wis, Mich, Pa, Conn and nMass (Scoggan 1978-79).
NFLD	Humber East; Grand Falls; Lewisporte; Gander; Bonavista North; Bonavista South.
MAP	Bearns 1967; Critchfield & Little 1966; Damman 1976; Fernald 1911; Fowells 1965; Hosie 1969; Hough 1947; Little 1971; Mirov 1967; Munns 1938; Nichols 1935; Preston 1961; Roberts 1985.
HABITAT	Open forests mostly on dry sandy soils, but also on exposed coastal dioritic rocks and shattered silicic and basic volcanic rocks (Roberts 1985).
ECOREGIONS	IIA, III
STATUS	Rare in Manitoba.
NFLD RARITY	S2
NOTES	Roberts (1985) gives a thorough review of the status of this species in Newfoundland.

Platanthera albida (L.) Lindl. var. **straminea** (Fern.) Luer
(Syn. *Habenaria straminea* Fern., *Habenaria albida* (L.) R. Br. var. *straminea* (Fern.) Morris, *Leucorchis albida* (L.) E. Meyer ssp. *straminea* (Fern.) Löve & Löve)

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	nwQue, nwNfld, G; Iceland; Faeroes; Scandinavia (Scoggan 1978-79 emend.).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Böcher 1954; Fernald 1929; Hultén 1958; Hultén & Fries 1986; Löve 1950, Catling 1983; Luer 1975; Meusel *et al.* 1965.
HABITAT	Turfy limestone barrens.
ECOREGIONS	IVA, IX
STATUS	Rare in Canada N2T2. Rare in Quebec.
NFLD RARITY	S2
NOTES	Cape Norman is the type locality of *H. straminea* (Fernald 1926).

Platantnera grandiflora (Bigel.) Lindl.
(Syn. *Habenaria psycodes* (L.)Spreng. var. *grandiflora* (Bigel.) A. Gray, *Habenaria fimbriata* (Ait.) R.Br.)

SOURCES	CAN, CDFN, GH, MT, NFLD; A.H. Reddoch (pers. comm.), Rouleau (unpublished maps).
RANGE	eOnt, sQue, NB, NS, SPM, Nfld; from New England, NY and Pa southward in Appalachian uplands to NC (Stoutamire 1974).
NFLD	St. George's; Grand Falls; Gander; Burin; Burgeo and La Poile.
MAP	Catling *et al.* 1982; Luer 1975; Stoutamire 1974.
HABITAT	Fens, shoreline of rivers and lakes, and damp coniferous woods.
ECOREGIONS	ID, IIA, IIB, VIB, VIC
STATUS	Rare in Ontario.
NFLD RARITY	S2
NOTES	Easily overlooked because of its similarity to the more common and widespread *P. psycodes* (L.) Lindl. (Catling *et al.* 1982).

Platanthera hookeri (Torr. ex Gray) Lindl.
(Syn. *Habenaria hookeri* Torr. ex Gray, *Habenaria hookeri* Torr. ex Gray var. *abbreviata* Fern.)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	sMan-Ont, Que, NB, PEI, NS and Nfld, south to Iowa, WVa and New England (Scoggan 1978-79).
NFLD	St. George's; St. Barbe South; Humber West.
MAP	Luer 1975.
HABITAT	Dry turfy limestone barrens.
ECOREGIONS	IA, ID, IVA, IX
STATUS	Rare in Manitoba.
NFLD RARITY	S2
NOTES	St. John Bay is the type locality of *Habenaria hookeri* var. *abbreviata* (Fernald 1933).

Platanthera orbiculata (Pursh) Torr. var. **macrophylla** (Goldie) Luer
(Syn. *Habenaria orbiculata* (Pursh)Torr. var. *macrophylla* (Goldie)Boivin, *Habenaria macrophylla* Goldie)

SOURCES CAN, GH, MT, NFLD; A.H. Reddoch (pers. comm.), Rouleau (unpublished maps).
RANGE Ont-Que, NB, NS and Nfld, south to Wis, NY and Conn (Scoggan 1978-79).
NFLD Trinity South (Whitbourne); St. Mary's (Salmonier).
MAP Luer 1975; Reddoch *et al.* 1982.
HABITAT Moist coniferous woods.
ECOREGIONS V, VIB
STATUS Rare in Quebec, Ontario, New Brunswick.
NFLD RARITY SH
NOTES Known from only two localities. Collected by B.L. Robinson and H. Schrenk in 1894, and by A.M. Ayre in 1932. Observed by L. Johnson in the Whitbourne area in 1989 (A.H. Reddoch, pers. comm.).

Poa arctica R. Br.

SOURCES CAN, DAO, GH, MT; E.A. Kellogg (pers. comm.), Rouleau (unpublished maps).
RANGE Aleutian Is. and coasts Alas-Y-Mack through Canadian Arctic Archipelago to Ellesmere Is. and nmost Ungava-Lab; south to sAlas-Y-Mack-K, nMan, nOnt, Que, sLab and nwNfld; in the mts through BC and Alta to Ore and NMex; circumgreenlandic; Iceland; Spitsbergen; Eurasia (Scoggan 1978-79).
NFLD White Bay North; St. Barbe North.
MAP Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT Wet quartzite rocks and limestone barrens.
ECOREGIONS IVC, VIIIC, IX
STATUS Rare in Saskatchewan, Manitoba.
NFLD RARITY SH

Poa eminens J.S. Presl in C. Presl

SOURCES CAN, DAO, GH, MT, NFLD; J. Cayouette & S. Darbyshire (pers. comm.), Rouleau (unpublished maps).
RANGE Aleutian Is. and nwAlas to swBC; neOnt-nwQue (James Bay, Hudson Bay), eQue-nwNfld-Lab; neAsia (Scoggan 1978-79 emend.).
NFLD White Bay North; St. Barbe North; St. Barbe South.
MAP Fernald 1925a; Cayouette & Darbyshire (incd., DAO); Hultén 1968; Potter 1932.
HABITAT Turfy and gravelly sea-strands; sea cliffs.
ECOREGIONS IX
NFLD RARITY S2
NOTES Can be abundant in its habitat. A southern collection at Port au Port by Beautemps and Beaupré in 1847 (P) could not be verified.

Poa fernaldiana Nannf.
(Syn. *Poa laxa* Haenke ssp. *fernaldiana* (Nannf.) Hyl.)

SOURCES CAN, GH, MT, NFLD; Boucha[illegible] *et al.* 1986, Nannfeldt 1935, Rouleau (unpublished maps).
RANGE eQue and wNfld, south to alpine summits of Me, NH, NY and Vt.
NFLD St. Barbe North; St. Barbe South.
MAP Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965.
HABITAT Damp alpine quartzite ledges and cliffs.
ECOREGIONS VIIIC
STATUS Rare in Canada N2. Rare in Quebec (Appendix).
NFLD RARITY S1
NOTES The eastern record for St. John's (Rouleau, unpublished maps) could not be substantiated and appears doubtful.

Poa laxa ssp. **fernaldiana** = **Poa fernaldiana**

Polygala paucifolia Willd.

Sources	MT; Rouleau (unpublished maps).
Range	Alta-Sask-Man, Ont, Que, NB and Nfld, south to Minn, Ill, Tenn and Ga (Scoggan 1978-79 emend.).
Nfld	Green Bay (near South Brook).
Map	Gillett 1968.
Habitat	Alluvial alder thicket.
Ecoregions	IIA
Status	Rare in Alberta, Saskatchewan, Quebec, New Brunswick.
Nfld rarity	SH
Notes	Known from only one locality. Collected by G. Parsons in the 1960s, it has not been relocated since.

Polygonum boreale (Lange) Small

Sources	CAN, GH, MT, NFLD; Thannheiser 1981, 1984.
Range	Boreal eastern Canada, Greenland (Wolf & McNeill 1986).
Nfld	White Bay North; St. Barbe North; St. George's; Fogo; Burin; Fortune Bay.
Map	Thannheiser 1981, 1984.
Habitat	Brackish gravelly beaches.
Ecoregions	IE, III, VIB, VIC, IX
Nfld rarity	S2
Notes	This taxon requires further taxonomic study.

Polygonum cilinode Michx.
(Syn. *Fallopia cilinode* (Michx.) Holub)

Sources	CAN, GH, MT; Rouleau (unpublished maps).
Range	e/cSask to Man, Ont, Que, NB, PEI, NS and Nfld, south to Minn, Mich, Tenn and NC (Scoggan 1978-79).
Nfld	Grand Falls; Fogo; Harbour Main.
Habitat	Brackish gravelly beaches.
Ecoregions	IIA, III, VIA
Nfld rarity	S1
Notes	It is difficult to determine whether this species is native or introduced in Newfoundland.

Polygonum oxyspermum ssp. **rail** = **Polygonum rail**

Polygonum rail Bab.
(Syn. *Polygonum oxyspermum* C.A. Meyer & Bunge ex Ledeb. ssp. *rail* (Bab.) Webb & Chater)

Sources	CAN, GH, MT, NFLD; Rouleau (unpublished maps), Thannheiser 1981, 1984, Wolf & McNeill 1986.
Range	eQue, NB, PEI, NS and Nfld; nEurope (Scoggan 1978-79 emend.).
Nfld	St. Barbe North; St. Barbe South; Port au Port; St. George's; Harbour Main; Placentia East; Burin; Fortune Bay.
Map	Hultén 1958; Hultén & Fries 1986; Thannheiser 1981, 1984; Löve & Löve 1956a.
Habitat	Brackish sandy or gravelly beaches.
Ecoregions	IB, IC, ID, IE, IVA, VIA, VIB, VIC, IX
Status	Rare in New Brunswick.
Nfld rarity	S2

Polystichum mohrioides var. **scopulinum** = **Polystichum scopulinum**

Polystichum scopulinum (D.C. Eaton) Maxon
(Syn. *Polystichum mohrioides* (Bory) Presl var. *scopulinum* (D.C. Eaton) Fern.)

Sources	MT; Wagner & Rouleau 1984, Rouleau (unpublished maps).
Range	sBC, Ida and nwWyo, south to sCal and seAriz; disjunct on the Gaspé Peninsula, Que (Lellinger 1985) and in wNfld.
Nfld	Humber West (North Arm).
Map	Cody & Britton 1989; Fernald 1918a, 1925a, 1929; Wagner & Rouleau 1984.
Habitat	Southerly slopes of dry serpentine ridges.
Ecoregions	IA
Status	Rare in Canada N1. Rare in British Columbia, Quebec.
Nfld rarity	SH
Notes	Cordilleran disjunct in eastern Canada. Wagner & Rouleau (1984) consider this taxon as a hybrid. Known from only one locality, collected by E. Rouleau in 1950. Not relocated since.

Potamogeton amplifolius Tuckerm.

Sources	CAN, CDFN, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
Range	BC-Sask, Man, Ont, Que, NB, NS, Nfld, south to Cal, SDak, Okla and Ga (Scoggan 1978-79).
Nfld	St. Barbe South; Humber West; Humber East; St. John's East; St. Mary's.
Map	Ogden 1943; Steyermark 1941.
Habitat	Shallow to deep water in ponds.
Ecoregions	IB, IVA, V, VIB
Status	Rare in Saskatchewan, Manitoba.
Nfld rarity	S1

Potamogeton foliosus Raf. var. **foliosus**
(Syn. *Potamogeton foliosus* var. *macellus* Fern.)

Sources	MT, NASC; Hay *et al.* 1990, C.B. Hellquist (pers. comm.).
Range	sAlas; Great Bear L.; BC, Alta, Sask, Man, Ont, Que, NB, PEI, NS, Lab, Nfld, south to Cal, Mex, Tex and Fla; Guatamala; West Indies; Hawaii (Scoggan 1978-79, Haynes 1974).
Nfld	Humber East (Upper Humber River near Deer Lake).
Map	Fernald 1932; Haynes 1974, Hultén 1968.
Habitat	Shallow quiet water of rivers.
Ecoregions	IB
Status	Rare in Yukon, Northwest Territories.
Nfld rarity	S1
Notes	Known from only one locality where it was collected by A. Bouchard, S.G. Hay and L. Brouillet in 1988 (Hay *et al.* 1990). Such aquatic species may be undercollected.

Potamogeton foliosus var. **macellus** =
Potamogeton foliosus var. **foliosus**

Potamogeton longiligulatus =
Potamogeton strictifolius

Potamogeton friesii Rupr.

Sources	CAN, GH, MT, NASC; C.B. Hellquist (pers. comm.), Rouleau (unpublished maps).
Range	sAlas-Y to the Mackenzie R. Delta, Great Bear L., sK, Ont, Que, NB, PEI, NS, wNfld, south to Wash, sBC, sAlta, Sask, SDak, Ind and Va; Eurasia (Scoggan 1978-79).
Nfld	St. Barbe South; Port au Port; St. George's.
Map	Fernald 1932; Haynes 1974; Hultén 1958,1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1966a; Porsild & Cody 1980.
Habitat	Alkaline pools and ponds.
Ecoregions	IB, IC, IVA
Status	Rare in New Brunswick, Nova Scotia.
Nfld rarity	S1
Notes	Such aquatic species may be undercollected.

Potamogeton obtusifolius Mert. & Koch

Sources	BM, MT, NASC; C.B. Hellquist (pers. comm.), Rouleau (unpublished maps).
Range	scY and swBC to Alta, Sask, Ont to Que, NB, NS, sLab, Nfld, south to Kan, Minn, Mich and nNJ; Eurasia (Scoggan 1978-79).
Nfld	St. Barbe South (Hawke Bay); White Bay South (Adies Pond).
Map	Fernald 1932; Haynes 1974; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild & Cody 1980.
Habitat	Pools and shallow ponds.
Ecoregions	IIA, IVA
Status	Rare in Yukon, British Columbia, Alberta, Saskatchewan, Manitoba, Nova Scotia.
Nfld rarity	S1
Notes	Known from only two localities where it was collected by Lister in 1938 at Adies Pond (not verified), and by C.B. Hellquist and G.E. Crow in 1986. Relocated in 1987. Such aquatic species may be undercollected.

Potamogeton pectinatus L.

SOURCES	CAN, DAO, GH, MT, NASC; C.B. Hellquist (pers. comm.), Rouleau (unpublished maps).
RANGE	nAlas, scY and nwMack to L. Athabasca (Alta and Sask), Man, Ont, Que, NB, PEI, NS, SPM, Nfld, south to Baja Cal, Mexico, Tex and Fla; SAmerica; Eurasia; Africa (Scoggan 1978-79).
NFLD	St. George's; St. Mary's; Placentia East; Fortune Bay.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1966; Porsild & Cody 1980.
HABITAT	Brackish ponds and tidal pools.
ECOREGIONS	ID, VIB
STATUS	Rare in Northwest Territories.
NFLD RARITY	S1
NOTES	Such aquatic species may be undercollected.

Potamogeton spirillus Tuckerm.

SOURCES	CAN, GH, MT; Hay *et al.* 1990, Rouleau (unpublished maps).
RANGE	SDak and Minn to Ont, Que, NB, NS, Nfld, south to Iowa, Wis, Ohio and Va (Scoggan 1978-79).
NFLD	Humber East; Grand Falls; Gander; Fortune Bay.
MAP	Fernald 1932; Reznicek & Bobbette 1976.
HABITAT	Shallow water of ponds or still pools along rivers.
ECOREGIONS	IB, IIA
NFLD RARITY	S1
NOTES	Until 1988, it was known from only one locality, Rushy Pond, where it was collected by M.L. Fernald, K.M. Wiegand and H.T. Darlington in 1911. It has been discovered recently at three new localities (Hay *et al.* 1990). Such aquatic species may be undercollected.

Potamogeton strictifolius Benn.

(Syn. *Potamogeton longiligulatus* Fern.)

SOURCES	DAO, GH, MT, NASC; Hay *et al.* 1990, Hellquist & Crow 1986, Rouleau (unpublished maps).
RANGE	eQue to NWT, south to nwConn, NY, Ind, Minn, Neb, Wyo and nUtah (Hellquist & Crow1986).
NFLD	St. Barbe North (Flower's Cove).
MAP	Fernald 1932; Haynes 1974.
HABITAT	Large pond on limestone pavement.
ECOREGIONS	IX
STATUS	Rare in British Columbia, Alberta, Manitoba.
NFLD RARITY	S1
NOTES	Known from only one locality where it was collected by M.L. Fernald and B. Long in 1925. Population relocated in 1987. Flower's Cove is the type locality for what Fernald (1932) named *P. longiligulatus* , but these specimens have recently been revised to *P. strictifolius* (Hellquist & Crow 1986). Such aquatic species may be undercollected.

Potamogeton vaginatus Turcz.

SOURCES	CAN, GH, MT, NASC; Rouleau (unpublished maps).
RANGE	Aleutian Is., nAlas, scY and the Mackenzie R. Delta to Great Bear L., Alta, Sask, sK, Man, Ont, Que, PEI, NS, Nfld, south to Ore, Wyo, NDak, Mich and NJ; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South.
MAP	Blondeau & Cayouette 1987; Hultén 1962, 1968; Hultén & Fries 1986; Porsild & Cody 1980.
HABITAT	Ponds on limestone pavement, along the coast.
ECOREGIONS	IVA, IX
NFLD RARITY	S1
NOTES	C.B. Hellquist (pers. comm.) suggests that the Newfoundland collections of *P. vaginatus* are possibly better treated as *P. filiformis* Pers. var. *occidentalis* (Robbins) Morong (Hellquist & Crow 1980). Such aquatic species may be undercollected.

Potamogeton zosterifolius ssp. **zosteriformis = Potamogeton zosteriformis**

Potamogeton zosteriformis Fern.
(Syn. *Potamogeton zosterifolius* Schum. ssp. *zosteriformis* (Fern.) Hult.)

SOURCES	NASC; C. B. Hellquist (pers. comm.).
RANGE	cAlas, Mack, sBC, Alta, Sask, Man, Ont, Que, NB, NS and wNfld; south to nVa in the east, westwards in Ore, nCal, Utah, Wyo, Nebr (Scoggan 1978-79 emend.).
NFLD	St. Barbe South (Hawkes Bay).
MAP	Fernald 1932; Hultén 1962, 1968.
HABITAT	Alkaline pools and ponds.
ECOREGIONS	IVA
STATUS	Rare in Northwest Territories, Nova Scotia.
NFLD RARITY	S1
NOTES	Known from only one locality, discovered by C. B. Hellquist and G. E. Crow in 1986.

Potentilla nivea var. **pulchella = Potentilla pulchella**

Potentilla pectinata = Potentilla pensylvanica var. **litoralis**

Potentilla pensylvanica L. var. **litoralis** (Rydb.) Boivin
(Syn. *Potentilla pectinata* Raf., *Potentilla pensylvanica* L. var. *pectinata* (Rydb.) Lepage)

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Great Slave L., Mack, L. Athabasca (Alta and Sask), Man to Ont, Que, NS, Lab, and Nfld; Me and NH (Scoggan 1978-79 emend.).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West.
MAP	Hultén 1968, Kohli & Packer 1976 (as *P. bipinnatifida* Dougl. ex Hook.).
HABITAT	Limestone or sandstone cliffs and talus.
ECOREGIONS	IA, IB, IVA, IVC, IX
STATUS	Rare in Saskatchewan, Manitoba, Nova Scotia.
NFLD RARITY	S2

Potentilla pensylvanica var. **pectinata = Potentilla pensylvanica** var. **litoralis**

Potentilla pulchella R. Br.
(Syn. *Potentilla usticapensis* Fern., *Potentilla nivea* L. var. *pulchella* (R. Br.) Durand)

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	wAleutian Is., coasts of Alas-Y-Mack-K through Canadian Arctic Archipelago to nEllesmere Is. and nmost Que, south to sAlas-Y, Great Bear L., neMan, nOnt, islands in James Bay, Que, Lab and nwNfld; G; Spitsbergen; arctic Asia (Scoggan 1978-79).
NFLD	White Bay North (Burnt Cape).
MAP	Blondeau 1990; Hultén 1958, 1968; Hultén & Fries 1986; Keddy 1984c; Porsild 1955, 1964; Porsild & Cody 1980.
HABITAT	Gravelly limestone barrens or crests.
ECOREGIONS	IX
STATUS	Rare in Yukon, Northwest Territories, Manitoba, Ontario, Quebec.
NFLD RARITY	S1
NOTES	Burnt Cape is the type locality of *P. usticapensis* (Fernald 1926). Known only from the type locality where it was collected by M.L. Fernald, K.M. Wiegand, A.S. Pease, B. Long, L. Griscom, F.A. Gilbert and N. Hotchkiss in 1925. Relocated in 1987.

Potentilla sibbaldii = Sibbaldia procumbens

Potentilla usticapensis = Potentilla pulchella

Prenanthes racemosa Michx.

SOURCES	MT; Hay *et al.* 1990.
RANGE	(aggregate species) eBC to Alta, Sask, Man, Ont, Que, NB, NS, wNfld, south to Mont, Colo, SDak, Mo, Ohio, New England (Scoggan 1978-79 emend.).
NFLD	Humber West (Wild Cove).
HABITAT	Open calcareous boggy places.
ECOREGIONS	IB
STATUS	Rare in British Columbia, Nova Scotia.
NFLD RARITY	S1
NOTES	Known from only one locality, discovered by L. Brouillet and I. Saucier in 1987 (Hay *et al.* 1990).

Provancheria cerastioides = Cerastium cerastioides

Puccinellia ambigua Th. Sørens.

SOURCES	DAO, MT, NFLD; Hay *et al.* 1990, Sørensen 1953, Thannheiser 1981, 1984.
RANGE	sHudson Bay-se James Bay; eQue-PEI-wNfld (Hinds 1983).
NFLD	St. Barbe South; Port au Port; St. George's.
MAP	Porsild 1969, Thannheiser 1981, 1984.
HABITAT	Gravelly shores and salt marshes.
ECOREGIONS	ID, IE, IVA
STATUS	Rare in New Brunswick.
NFLD RARITY	S1
NOTES	J. Davis (pers. comm.) feels that *P. ambigua* is a variant of *P. pumila* (Vasey) Hitchc., perhaps deserving varietal status.

Ranunculus affinis = Ranunculus pedatifidus ssp. **affinis**

Ranunculus gmelinii DC.

SOURCES	GH, NFLD; Kennedy 1931, Scott 1974, Rouleau (unpubl. maps).
RANGE	Alas-Mack-F-K, BC-NS, swNfld; south to Ore, NMex, SDak, Iowa, Mich and Me; Eurasia (Boivin 1966-67, Scoggan 1978-79, Scott 1974).
NFLD	St. George's (Barachois Brook and Robinson's Brook).
MAP	Benson 1962; Hultén 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947; Scott 1974.
HABITAT	Pools and deadwaters along rivers.
ECOREGIONS	ID
STATUS	Rare in Quebec, New Brunswick (var. *hookeri* (D. Don) Benson).
NFLD RARITY	S1
NOTES	Known from only two localities, collected by R.B. Kennedy, in 1930 and 1937. Relocated in 1971 at Robinson's Brook by P.J. Scott.

Ranunculus hyperboreus Rottb.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	Aleutian Is. and coasts of Alas-Y-Mack-K throughout the Canadian Arctic Archipelago to nmost Ellesmere Is. and nmost Ungava-Lab; south in the West through BC-Alta to Mont, farther eastwards south to nwSask, neMan, nOnt, Que, sLab and nwNfld; circumgreenlandic; Iceland; Spitsbergen; nEurasia (Scoggan 1978-79 emend.).
NFLD	St. Barbe North.
MAP	Hultén 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947; Scott 1974; White & Dickson 1983a.
HABITAT	Margins of pools and swales on limestone.
ECOREGIONS	IVA, IX
STATUS	Rare in Saskatchewan, Ontario.
NFLD RARITY	S1

Ranunculus lapponicus L.

SOURCES	CDFN; Hay *et al.* 1990.
RANGE	Alas-Y-Mack-scK-nmost Que-sBaffin Is., cBC-Alta-Sask-Man-Ont-Que, NB, wNfld, Lab, south to nMinn, nMe; swG; Spitsbergen; nEurasia (Scoggan 1978-79 emend.).
NFLD	Humber East (Grand Lake).
MAP	Given & Soper 1981; Hultén 1968; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947.
HABITAT	Boggy plateau.
ECOREGIONS	IB
STATUS	Rare in New Brunswick.
NFLD RARITY	SH
NOTES	Known from only one locality. Collected by Wilton in 1956, it has not been relocated since.

Ranunculus macounii Britt.

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	cAlas-Y and nwMack-Great Slave L., nAlta, Sask, Man, Ont, Que, Lab and Nfld, south to Cal, NMex, Kan, Mich (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Humber East; Port au Port; White Bay South; Grand Falls; Gander.
MAP	Porsild & Cody 1980.
HABITAT	Alluvial shores and swales.
ECOREGIONS	IA, IB, IC, IIA, IVA
NFLD RARITY	S2

Ranunculus pedatifidus J.E. Sm. ex Rees **ssp. affinis** (R.Br.) Hult.
(Syn. *Ranunculus affinis* R.Br., *Ranunculus pedatifidus* J.E. Sm. ex Rees var. *leiocarpus* (Trautv.) Fern.)

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Alas-Y-Mack, K, Canadian Arctic Archipelago to Ellesmere Is.; BC-n/sAlta, neMan-Ont (Hudson Bay)-nQue (disjunct in eQue in Shickshock Mts)-Lab-nwNfld; southward in the Cordillera to Ariz and NMex, disjunct isolate in nMinn; G; nEurasia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe South.
MAP	Benson 1962; Hultén 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; White & Dickson 1983b.
HABITAT	Mossy and turfy ledges or fissures of cliffs and talus.
ECOREGIONS	VIIIC, IX
STATUS	Rare in British Columbia, Manitoba, Ontario.
NFLD RARITY	S1

Ranunculus pedatifidus var. **leiocarpus** = **Ranunculus pedatifidus** ssp. **affinis**

Ranunculus pensylvanicus L. f.

SOURCES	CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	BC-swMack, Alta, Sask, Man, Ont, Que, NB, PEI, NS, sLab, Nfld; south to Wash, Ariz, NMex, Neb, Ohio, Pa and Del (Scoggan 1978-79).
NFLD	St. Barbe North; Humber East; White Bay South; Gander.
MAP	Benson 1962; Hultén 1968; Porsild & Cody 1980.
HABITAT	Alluvial shores and swales.
ECOREGIONS	IB, ID, IIA, IVA
STATUS	Rare in Northwest Territories.
NFLD RARITY	SH

Ranunculus recurvatus Poir. ex Lam.

SOURCES	DAO, GH, MT; Benson 1948, Rouleau (unpublished maps).
RANGE	Ont-Que, NB, PEI, NS, swNfld; south to Tex, Miss and Fla (Scoggan 1978-79).
NFLD	Port au Port; St. George's.
HABITAT	Shady woods along river banks.
ECOREGIONS	IC, ID, IE
NFLD RARITY	SH

Rhynchospora capillacea Torr.

SOURCES	GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Alta-Sask, sMan, sOnt, Que, NB, NS and Nfld, south to SDak, Ohio, Tenn and Va (Scoggan 1978-79).
NFLD	St. Barbe South (Bonne Bay); St. George's (Harry's Brook, Dump Pool) .
MAP	Gale 1944.
HABITAT	Marshes and bogs, usually in calcareous situations.
ECOREGIONS	IB, ID
STATUS	Rare in Alberta, Saskatchewan, Manitoba, Quebec, Nova Scotia, New Brunswick.
NFLD RARITY	SH
NOTES	Known from only two localities. Collected by K.P. Jansson in 1930, and by R.B. Kennedy in 1937; it has not been relocated since.

Sagittaria latifolia Willd.

SOURCES	CAN, MT, NFLD; Hay *et al.* 1990, Mann 1986.
RANGE	BC, Alta, Sask, Man, Ont, Que, NB, PEI, NS, wNfld, south to Cal, Mexico, and Tex; n S America; West Indies; Hawaii (Scoggan 1978-79 emend.).
NFLD	Humber East (Upper Humber River); Port au Port (Stephenville Crossing).
MAP	Bogin 1955 (var. *latifolia*); Fleurbec 1987.
HABITAT	Muddy shorelines.
ECOREGIONS	IB, ID
STATUS	Rare in British Columbia, Alberta.
NFLD RARITY	S1
NOTES	Recently discovered in Newfoundland by H. Mann at Stephenville Crossing in 1986, and subsequently found at several sites on the Upper Humber River in 1988 and 1989 (Hay *et al.* 1990).

Salix anglorum = Salix arctica

Salix arctica Pallas

(Syn. *Salix anglorum* Cham., *Salix arctica* Pallas var. *kophophylla* (Schneid.) Polunin)

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; G.W. Argus (pers. comm.), Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack through Canadian Arctic Archipelago to Ellesmere Is. and nmostUngava-Lab; south to nAlta, seK, c/eQue and wNfld and in the mts of the West through BC and swAlta to Cal and NMex; G; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West.
MAP	Argus & Keddy 1984; Hultén 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980; Raup 1947, 1959.
HABITAT	Alpine serpentine talus slopes.
ECOREGIONS	IA
STATUS	Rare in Ontario.
NFLD RARITY	S1
NOTES	Blomidon Mountain is the type locality of var. *kophophylla* (Schneider 1918).

Salix arctica var. **kophophylla = Salix arctica**

Salix arctophila Cockerell ex Heller

SOURCES	CAN, DAO, GH, MT, NFLD; G.W. Argus (pers. comm.), Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-Mack-K-sEllesmere Is. and nmost Ungava-Lab, south to Great Bear L., Great Slave L., neSask, nMan, Ont, Que, wNfld and mt Katahdin, Me; wG (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port.
MAP	Hultén 1968; Porsild 1964; Porsild & Cody 1980; Raup 1943, 1959.
HABITAT	Stream margins and peaty depressions in limestone barrens.
ECOREGIONS	IC, IX
STATUS	Rare in Yukon, Saskatchewan.
NFLD RARITY	S2

Salix ballii Dorn
(Syn. *Salix myrtillifolia* Anderss. var. *brachypoda* Fern.)

SOURCES	CAN, GH. MT; G.W. Argus (pers. comm.), Dorn 1975, Hay *et al.* 1990.
RANGE	nOnt-Que-sLab-wNfld (Dorn 1975).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber East; Port au Port; St. George's.
MAP	Dorn 1975; Dutilly *et al.* 1953.
HABITAT	Barrens, talus and thickets along streams and ponds on calcareous bedrock.
ECOREGIONS	IB, IC, ID, IVA, VIIIC, IX
NFLD RARITY	S2
NOTES	Port au Port (Table Mountain) is the type locality of *S. ballii* (Dorn 1975), which is based on *S. myrtillifolia* var. *brachypoda* (Fernald 1914b).

Salix herbacea L.

SOURCES	CAN, GH, MT; G.W. Argus (pers. comm.), Bouchard *et al.* 1986, Fernald 1918b, Rouleau (unpublished maps).
RANGE	Great Bear L. and coasts of Mack-K-Devon Is., Baffin Is. and nmost Ungava-Lab; south to nMan, Que and nwNfld and in the mts to NY, NH and Me; G; Iceland, Spitsbergen; Europe; nwSiberia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South.
MAP	Böcher 1954; Fernald 1918b; Hultén 1958; Hultén & Fries 1986; Ives 1974; Meusel *et al.* 1965; Porsild 1958, 1964; Porsild & Cody 1980; Raup 1943, 1959; Thorne 1972.
HABITAT	Alpine snowbeds on siliceous rock.
ECOREGIONS	VIIIC
STATUS	Rare in Manitoba.
NFLD RARITY	S2
NOTES	Such alpine species may be undercollected in the Long Range Mountains.

Salix jejuna Fern.

SOURCES	CAN, DAO, GH, MT, NFLD; G.W. Argus (pers. comm.), Rouleau (unpublished maps).
RANGE	seLab, ?Que and nNfld (Scoggan 1978-79).
NFLD	St. Barbe North.
MAP	Raup 1943.
HABITAT	Limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Canada N2.
NFLD RARITY	S1
NOTES	Cape Norman is the type locality of this endemic species (Fernald 1926). Although its status is somewhat uncertain, G.W. Argus (pers. comm.) maintains it as a species for the present.

Salix myrtillifolia Anderss.

SOURCES	CAN, MT; G.W. Argus (pers. comm.), Dorn 1975, Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-K, BC-Ont, disjunct in eQue, NB, nNfld (Dorn 1975).
NFLD	White Bay North (Cape Ardoise); St. Barbe South (Ingornachoix).
MAP	Dorn 1975; Hultén 1968; Porsild & Cody 1980; Raup 1947, 1959.
HABITAT	Heath covered slopes, limestone talus and barrens.
ECOREGIONS	IVA, IX
STATUS	Rare in New Brunswick.
NFLD RARITY	S1
NOTES	Known from only two localities. Collected by G.W. Argus and G. Mc Pherson in 1969, and by M.L. Fernald, K.M. Wiegand and J. Kittredge in 1910; it has not been relocated since.

Salix myrtillifolia var. **brachypoda = Salix ballii**

Salix pedicellaris Pursh

SOURCES CAN, GH, MT, NFLD; G.W. Argus (pers. comm.), R.M. Etcheberry (pers. comm.), Rouleau (unpublished maps).
RANGE seY and BC to Great Bear L., Great Slave L., L. Athabasca (Alta and Sask), Man, nmost Ont, Que, NB, NS, SPM, Nfld, and Lab, south to Ore, nIda, nIowa, Ill, Pa and NJ (Scoggan 1978-79).
NFLD Humber East; White Bay South; Grand Falls; Burin.
MAP Hultén 1968; Hultén & Fries 1986; Porsild & Cody 1980; Raup 1959.
HABITAT Fens and marshes.
ECOREGIONS IIA, VII
STATUS Rare in Yukon, Nova Scotia.
NFLD RARITY S2

Salix pedunculata Fern.

SOURCES CAN, DAO, GH, MT; G.W. Argus (pers. comm.), Rouleau (unpublished maps).
RANGE nwNfld (Fernald 1950).
NFLD White Bay North; St. Barbe North; St. Barbe South.
HABITAT Stream margins and peaty depressions in limestone barrens.
ECOREGIONS IX
STATUS Rare in Canada N1.
NFLD RARITY S1
NOTES Savage Cove is the type locality of this endemic species (Fernald 1926). Although treated here as a species, there is the possibility that it may be a hybrid (G.W. Argus, pers. comm.).

Salix serissima (Bailey) Fern.

SOURCES CAN, DAO, GH, MT, NFLD; G.W. Argus (pers. comm.), Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE eBC, wcMack-L. Athabasca (Alta and Sask), Man, Ont, Que, seLab and Nfld south to Colo, NDak, Pa and NJ (Scoggan 1978-79 emend.).
NFLD White Bay North; St. Barbe North; St. Barbe South; Humber East; Grand Falls.
MAP Hultén 1968; Porsild & Cody 1980; Raup 1943, 1959.
HABITAT Fens, larch scrubs, and margins of brooks and ponds, usually on limestone.
ECOREGIONS IB, IIA, IVA, IVB, IX
STATUS Rare in British Columbia, Quebec.
NFLD RARITY S2

Saxifraga foliolosa R.Br.

(Syn. *Saxifraga stellaris* L. var. *comosa* Poir.)
SOURCES CAN, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE Aleutian Is.-Alas-Y-Mack-K-F (throughout the Canadian Arctic Archipelago), nQue-Lab, nwNfld; disjunct south to Colo and Me; G; Iceland; Spitsbergen; Eurasia (Scoggan 1978-79).
NFLD St. Barbe North; St. Barbe South.
MAP Hultén 1958, 1968; Hultén & Fries 1986; Löve & Löve 1951; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980.
HABITAT Alpine snowbeds and ravines.
ECOREGIONS VIIIC
STATUS Rare in Yukon, Northwest Territories.
NFLD RARITY S1

Saxifraga rivularis L.

SOURCES CAN, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE Aleutian Is. and coasts Alas-Y-Mack-K throughout the Canadian Arctic Archipelago to nmost Ellesmere Is. and nmost Ungava-Lab, south in the West through mts of BC and swAlta to Mont, farther eastwards south to sK, neMan, Que, sLab and nwNfld, and mts of NH; circumgreenlandic; Iceland; Spitsbergen; nEurasia (Scoggan 1978-79).
NFLD White Bay North; St. Barbe North; St. Barbe South.
MAP Böcher 1954; Hultén 1968; Hultén & Fries 1986; Porsild 1964; Raup 1947.
HABITAT Exposed cliffs, alpine ravines, and snowbeds.
ECOREGIONS VIIIC, IX
STATUS Rare in Manitoba.
NFLD RARITY S2

Saxifraga stellaris var. **comosa = Saxifraga foliolosa**

Scirpus atrovirens Willd.
(Syn. *Scirpus atrovirens* Willd. var. *georgianus* (Harper) Fern., *Scirpus pallidus* (Britt.) Fern.)

SOURCES CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE Alta, Sask, Man, Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Wash, Ore, Ariz, NMex, Tex, Ark, Tenn and Ga (Scoggan 1978-79).
NFLD Humber East; White Bay South; Green Bay; Grand Falls.
HABITAT Wet open shores of ponds and rivers.
ECOREGIONS IB, IIA, III
NFLD RARITY S2
NOTES Treated in an inclusive sense. Our specimens have been referred to var. *georgianus* (Harper) Fern. (Scoggan 1978-79). Some colonies appear to be adventive.

Scirpus atrovirens var. **georgianus = Scirpus atrovirens**

Scirpus fernaldii = Scirpus maritimus

Scirpus kamtschaticus = Eleocharis kamtschatica

Scirpus lacustris ssp. **validus = Scirpus validus**

Scirpus maritimus L.
(Syn. *Scirpus fernaldii* Bickn., *Scirpus paludosus* A. Nels.)

SOURCES CAN, MT, NFLD; Rouleau (unpublished maps).
RANGE BC to nmost Alta and Mack, Sask, Man, Ont, Que, NB, PEI, NS, SPM, and Nfld, south to Baja Cal, Mexico, Tex, Okla, Mo, Minn, NY and Va; Eurasia (Scoggan 1978-79 emend.).
NFLD Port au Port; St. George's; Lewisporte.
MAP Fleurbec 1985; Hultén & Fries 1986; Riley & McKay 1980.
HABITAT Tidal flats and salt marshes.
ECOREGIONS IC, ID, III
STATUS Rare in Northwest Territories, Ontario.
NFLD RARITY S2
NOTES Treated in an inclusive sense. Some of the Newfoundland specimens have been referred to var. *paludosus* (A. Nels.) Kük., others to var. *maritimus*. Koyama (1962) recognizes both taxa. Salt marsh habitats are scarce in Newfoundland.

Scirpus pallidus = Scirpus atrovirens

Scirpus paludosus = Scirpus maritimus

Scirpus tabernaemontanii = Scirpus validus

Scirpus validus M. Vahl
(Syn. *Scirpus lacustris* L. ssp. *validus* (M. Vahl) Koyama, *Scirpus tabernaemontanii* sensu auctt., non C.C. Gmel.)

SOURCES CAN, GH, MT; Rouleau (unpublished maps).
RANGE Alas-NWT, BC-Nfld; Wash-Cal-Tex-Tenn-Ga-Me.
NFLD Humber East; St. George's.
MAP Fleurbec 1987; Hultén 1962, 1968; Hultén & Fries 1986; Porsild & Cody 1980.
HABITAT Marshy shores along rivers.
ECOREGIONS IB, ID, IE
STATUS Rare in Yukon.
NFLD RARITY S1
NOTES The plant of the United States and Canada has been distinguished from the typical variety of the eastern American tropics as var. *creber* Fern. (Voss 1972). Shay *et al.* (1988) discuss some of the systematic problems in the *S. lacustris* complex.

Senecio cymbalaria Pursh
(Syn. *Senecio resedifolius* Less., *Senecio fernaldii* Greenm.)

SOURCES CAN, GH, MT, NFLD; Barkley 1962, 1976; Fernald 1924a, Kowal 1975, Rouleau (unpubl. maps).
RANGE eAleutians Is. and coasts of Alas, Y and nwMack to Banks Is., south to BC and swAlta to Wash, Mont and Wyo, with a disjunct area in eQue and wNfld; neEurope; Asia (Scoggan 1978-79).
NFLD Port au Port (Table Mountain).
MAP Barkley 1962, Fernald 1924b, 1925a, 1929; Hultén 1968; Hultén & Fries 1986; Morisset 1979; Packer 1971; Porsild & Cody 1980.
HABITAT Dry exposed ledges and gravels on limestone barrens.
ECOREGIONS IC
STATUS Rare in Northwest Territories, Quebec.
NFLD RARITY S1
NOTES Table Mountain is the type locality of *S. fernaldii* (Greenman 1916). Known only from this locality, first discovered by M.L. Fernald, K.M. Wiegand and J. Kittredge in 1910. Relocated in 1986.

Senecio fernaldii = Senecio cymbalaria

Senecio pauciflorus Pursh

SOURCES CAN, DAO, GH, MT; Barkley 1962, Fernald 1924a, Kowal 1975, Rouleau (unpublished maps).
RANGE Alas to Y, swMack, south through western Cordillera of BC and swAlta to nWash-Ida-Wyo, Cal (Sierra Nevada), with scattered stations eastwards in neSask, Que, Lab and nwNfld (Barkley 1962, Scoggan 1978-79).
NFLD White Bay North; St. Barbe North; St. Barbe South.
MAP Barkley 1962; Hultén 1968; Porsild & Cody 1980.
HABITAT Calcareous or slaty, cliffs and ravines.
ECOREGIONS IVA, IX
STATUS Rare in Northwest Territories, Saskatchewan.
NFLD RARITY S2

Senecio resedifolius = Senecio cymbalaria

Sibbaldia procumbens L.
(Syn. *Potentilla sibbaldii* Haller f.)

SOURCES CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE Aleutian Is., nAlas, cY and nwMack to seBaffin Is. and nmost Ungava-Lab, south in the West to sCal, Utah and Colo, farther eastwards south to seK, James Bay, Que, nwNfld and the White Mts of NH; G; Iceland; Spitsbergen; arctic and alpine Eurasia (Scoggan 1978-79).
NFLD St. Barbe North; St. Barbe South.
MAP Böcher 1954; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964; Raup 1947; Raymond 1950a.
HABITAT Late snowbeds and alpine ravines.
ECOREGIONS VIIIC
STATUS Rare in Northwest Territories.
NFLD RARITY S1
NOTES Such alpine species may be undercollected in the Long Range Mountains.

Smilacina racemosa = Maianthemum racemosum ssp. **racemosum**

Solidago sempervirens L.

SOURCES CAN, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE Que to NB, PEI, NS, Nfld, south along Atlantic coast to Fla, Tex; inland in sOnt and Mich where it may be a recent introduction.
NFLD St. Barbe South; Humber West; Port au Port; St. George's; Lewisporte; Placentia West.
MAP Fleurbec 1985; Goodwin 1937; Semple & Ringius 1983.
HABITAT Salt marshes and brackish shores.
ECOREGIONS IA, IB, IC, ID, III, VIB
STATUS Rare in Ontario.
NFLD RARITY S2

Sparganium eurycarpum Engelm.

SOURCES	CAN, DAO, GH, MT; R.M. Etcheberry (pers. comm.), Hébert 1973, Rouleau (unpublished maps).
RANGE	BC-wcMack, Alta, Sask, Man, Ont, Que, NB, PEI, NS, SPM, Nfld, south to Baja Cal, Kan, Mo, Ind, Ohio, ?Fla. (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; Burin; Fortune Bay.
MAP	Cook & Nicolls 1987; Fleurbec 1987; Hébert 1973; Hultén 1968.
HABITAT	Shallow waters and on damp shores, swales and marshes (Crow & Hellquist 1981).
ECOREGIONS	IA, IB, IVA, VIC, VII
STATUS	Rare in Northwest Territories.
NFLD RARITY	S2
NOTES	May be occasionally adventive in wet roadside ditches.

Sparganium fluctuans (Engelm. ex Morong) B.L. Robins.

SOURCES	CAN, GH, MT; Hébert 1973, Rouleau (unpublished maps).
RANGE	BC, nAlta (L. Athabasca), nSask, Man, Ont, Que, NB, PEI, NS, Nfld, south to Minn, Pa and New England.
NFLD	Grand Falls; Bonavista South; St. John's East; St. Mary's.
MAP	Cook & Nicolls 1986; Fleurbec 1987; Hébert 1973.
HABITAT	Shallow, rocky-bottomed ponds with organic deposit.
ECOREGIONS	IIA, V, VIA, VIB
STATUS	Rare in British Columbia, Alberta, Saskatchewan.
NFLD RARITY	S1
NOTES	Such aquatic species may be undercollected.

Spartina alterniflora Loisel.

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	eQue to NB, PEI, NS, Nfld; south along Atlantic coast to Fla and Tex; east coast SAmerica; introduced in Wash and Europe (Mobberley 1956, Scoggan 1978-79).
NFLD	St. Barbe North; Port au Port; St. George's; Lewisporte; Bonavista North.
MAP	Fernald 1929; Fleurbec 1985; Mobberley 1956; Thannheiser 1981, 1984; Walff 1943.
HABITAT	Tidal marshes and sea-shores.
ECOREGIONS	IC, ID, III, IX
NFLD RARITY	S2
NOTES	Salt marsh habitats are scarce in Newfoundland.

Spartina patens (Ait.) Muhl.

SOURCES	CAN, GH, MT; D. Thannheiser (pers. comm.), Rouleau (unpublished maps).
RANGE	seQue to NB, PEI, NS, Nfld (inland in seMich and wNY) south along the coast to Fla and Tex; West Indies; introduced in Europe; nAfrica (Mobberley 1956, Scoggan 1978-79).
NFLD	St. George's; Lewisporte.
MAP	Fernald 1929; Fleurbec 1985; Mobberley 1956; Thannheiser 1981, 1984; Walff 1943.
HABITAT	Tidal marshes and sea shores.
ECOREGIONS	ID, III
NFLD RARITY	S1
NOTES	Salt marsh habitats are scarce in Newfoundland.

Sphenopholis intermedia (Rydb.) Rydb. (Syn. *Sphenopholis obtusata* (Michx.) Scribn. var. *major* (Torr.) Erdman)

SOURCES	CAN, DAO, GH, MT, NFLD; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	cAlas and Great Slave Lake to BC-Alta, Sask, Man, Ont, Que, NB, PEI, NS, Nfld, south to Ore, Ariz, Tex and Fla.
NFLD	St. Barbe South; Humber West; Port au Port; St. George's.
MAP	Erdman 1965; Hultén 1968; Porsild & Cody 1980.
HABITAT	Limestone cliffs and talus.
ECOREGIONS	IB, IC, ID
STATUS	Rare in Yukon.
NFLD RARITY	S1

Sphenopholis obtusata var. **major** = **Sphenopholis intermedia**

Stellaria crassifolia Ehrh.

SOURCES CAN, GH, MT, NFLD; Rouleau (unpublished maps).

RANGE Aleutian Is. and coasts of Alas-Y-wMack to Victoria Is., cK, Southampton Is., Prince Charles Is., sBaffin Is. and nmost Ungava-Lab, s in the West through BC and Alta-Sask-Man to Ida, Mont, Colo, NDak and Minn, farther eastwards south to w/eJames Bay, eQue, NB, PEI, NS and wNfld, Iceland; Eurasia (Scoggan 1978-79).

NFLD White Bay North; St. Barbe North; St. Barbe South.

MAP Hultén 1968, 1971; Hultén & Fries 1986; Porsild 1964; Porsild & Cody 1980.

HABITAT Turfy sea-shores and wet, peaty barrens, on limestone.

ECOREGIONS IVA, IX

STATUS Rare in New Brunswick, Nova Scotia.

NFLD RARITY S2

Suaeda americana = Suaeda calceoliformis

Suaeda calceoliformis (Hook.) Moq.

(Syn. *Suaeda depressa* auctt., non (Pursh) S. Wats., *Suaeda americana* (Pers.) Fern., *Suaeda maritima* auctt., non (L.) Dumort.)

SOURCES CAN, MT, NFLD; Bassett & Crompton 1978, McNeill *et al.* 1977.

RANGE Alas-Y, Mack, BC-Man, James Bay (Ont, Que), eQue-Nfld, south to NJ; Wash to NDak and south from Cal to Tex.

NFLD Lewisporte; Trinity South; Harbour Main; Fortune Bay.

MAP Bassett & Crompton 1978, Crompton 1987, Thannheiser 1981, 1984 (as S. maritima).

HABITAT Tidal flats and brackish sea-shores.

ECOREGIONS III, VIA, VIB, VIC

STATUS Rare in Yukon, Northwest Territories, Ontario.

NFLD RARITY S2

NOTES The interspecific taxonomy of *Suaeda* is controversial. In the Gulf of St. Lawrence, Hopkins & Blackwell (1977) recognize *S. richii* (see following species) and *S. americana* (*S. depressa*), both Atlantic coast taxa. Bassett & Crompton (1978) also maintain *S. richii* , while *S. americana* is merged with *S. calceoliformis*, a primarily western taxon. Some specimens of *Suaeda* from Newfoundland have been identified as *S. maritima* (L.) Dumort., introduced from Europe.

Suaeda depressa = Suaeda calceoliformis

Suaeda maritima = Suaeda calceoliformis

Suaeda maritima ssp. **richii = Suaeda richii**

Suaeda richii Fern.

(Syn. *Suaeda maritima* (L.) Dumort. ssp. *richii* (Fern.) Bassett & Crompton)

SOURCES GH; Bassett & Crompton 1978, Hopkins & Blackwell 1977.

RANGE Nfld-neMass (Fernald 1950).

NFLD St. George's (St. George's Bay); Placentia East (Argentia).

MAP Porsild 1966; Bassett & Crompton 1978.

HABITAT Damp depressions in sand and gravel back of barrier beaches.

ECOREGIONS ID, VIB

STATUS Rare in Canada N?T1.

NFLD RARITY SH

NOTES Known only from two localities. Last collected by M.L. Fernald, B. Long and B. Dunbar, in 1924. The record for St. George's (La Pylaie, 1820, P) could not be substantiated.

Taraxacum latilobum DC.

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	eQue to NB, wNfld and Me (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Port au Port; Grand Falls; Burgeo and La Poile.
MAP	Couillard *et al.* 1988.
HABITAT	Turfy limestone seashore.
Ecoregions	IB, IC, IIA, VIC, IX
STATUS	Rare in New Brunswick.
NFLD RARITY	S2
NOTES	De Candolle (1848) described this species from a collection made by Bachelot de La Pylaie in 1826, but the herbarium specimen lacks precise information on the locality in Newfoundland. Relocated in 1990.

Taraxacum laurentianum Fern.

SOURCES	CAN, GH, MT; P. Morisset (pers. comm.), Rouleau (unpubl. maps).
RANGE	eQue and wNfld (Scoggan 1978-79).
NFLD	White Bay North (Ha-Ha Mountain); Humber West (Middle Arm).
MAP	Couillard *et al.* 1988.
HABITAT	Turfy slaty talus.
ECOREGIONS	IB, IX
NFLD RARITY	SH
NOTES	Ha-Ha Mountain is the type locality (Fernald 1933). Known from only two localities, where it was collected by M.L. Fernald, K.M. Wiegand, B. Long, F.A. Gilbert and N. Hotchkiss in 1925, and by M.L. Fernald, B. Long, F.A. Gilbert and N. Hotchkiss in 1925, and by M.L. Fernald, B. Long and J.M. Fogg in 1929. Relocated in 1990.

Taraxacum phymatocarpum M. Vahl

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	Coasts of Alas-Y-K to nmost Ellesmere Is., south to Baffin Is.; disjunct in nwNfld; G; neSiberia (Scoggan 1978-79).
NFLD	White Bay North (Burnt Island).
MAP	Fernald 1933; Hultén 1968; Porsild & Cody 1980.
HABITAT	Dry limestone barrens.
ECOREGIONS	IX
STATUS	Rare in Northwest Territories.
NFLD RARITY	S1
NOTES	Known from only one locality where it was discovered by M.L. Fernald, K.M. Wiegand, A.S. Pease, B. Long, L. Griscom, F.A. Gilbert and N. Hotchkiss in 1925. Population relocated in 1987.

Thelypteris limbosperma = Thelypteris quelpaertensis

Thelypteris palustris (Salisb.) Schott var. **pubescens** (Lawson) Fern.
(Syn. *Dryopteris thelypteris* (L.) A. Gray var. *pubescens* (Lawson) Fern., *Thelypteris thelypteroides* (Michx.) Holub)

SOURCES	CAN, GH, MT, OAC; D.M. Britton (pers. comm.), Rouleau (unpublished maps).
RANGE	seMan to Ont, Que, NB, PEI, NS, SPM, Nfld, south to Tex, Okla, Tenn, Ga; neAsia (Scoggan 1978-79).
NFLD	St. Barbe South; Humber West; White Bay South; Grand Falls; Trinity South; Burin.
MAP	Cody & Britton 1989; Hultén 1962; Hultén & Fries 1986; Tryon & Tryon 1973.
HABITAT	Sedge meadows and larch scrub, wet alder and willow thickets, open boggy woods.
ECOREGIONS	IB, IIA, IVA, V, VIB, VII
NFLD RARITY	S2

Thelypteris quelpaertensis (C. Chr.) Ching
(Syn. *Oreopteris limbosperma* (All.) Holub, *Thelypteris limbosperma* (All.) H.P.Fuchs, *Oreopteris quelpaertensis* (C. Chr.) Holub)

SOURCES BH, CAN, DAO, GH, MT; Bouchard & Hay 1976, Bouchard *et al.* 1986.
RANGE Coastal Alas, BC and Wash; disjunct at one locality in wNfld (Lellinger 1985); eAsia (Holttum 1980).
NFLD St. Barbe South (Gros Morne National Park).
MAP Bouchard *et al.* 1977; Cody & Britton 1989; Hultén 1962, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Taylor 1970.
HABITAT Open *Abies balsamea* forests, on wet alpine slopes, along streambanks.
ECOREGIONS VIIIC
STATUS Rare in Canada N2. Rare in British Columbia.
NFLD RARITY S1
NOTES Cordilleran disjunct in eastern Canada. Bouchard & Hay (1976) added this species to the flora of Newfoundland and the population was described in detail (Bouchard *et al.* 1977). Holttum (1980) refers the western North American material to the amphi-Beringian *O. quelpaertensis* to which the Newfoundland population likely belongs.

Thelypteris thelypteroides = Thelypteris palustris var. **pubescens**

Tillaea aquatica = Crassula aquatica

Trisetum melicoides (Michx.) Scribn.

SOURCES CAN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE Ont, Que, NB, NS, Nfld, south to Wis, Mich, NY and Me (Scoggan 1978-79).
NFLD St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port; St. George's; White Bay South; Grand Falls, Gander.
MAP Riley & McKay 1980.
HABITAT Rocky, gravelly or sandy banks of rivers; moist thickets.
ECOREGIONS IB, IC, ID, IIA, IIB, IX
STATUS Rare in Nova Scotia.
NFLD RARITY S2

Utricularia geminiscapa Benj.

SOURCES CAN, MT, GH; Rouleau (unpublished maps).
RANGE Wis and Mich to Ont, Que, NB, NS and Nfld, south to NY and Va (Scoggan 1978-79 emend.).
NFLD St. Barbe North; Humber West; Grand Falls, Burgeo and La Poile.
MAP Fernald 1933; Haber 1979, 1984.
HABITAT Shallow pools in open peat bogs or peaty barrens.
ECOREGIONS IB, IVA, VIC, VIIIA, VIIIB
STATUS Rare in Ontario, Quebec, New Brunswick.
NFLD RARITY S2
NOTES An easily overlooked aquatic species that may be undercollected.

Utricularia purpurea Walt.

SOURCES CAN, CDFN, MT, NFLD; Hay *et al.* 1990, Rouleau (unpublished maps), Smith 1966.
RANGE Wis and Mich to sOnt, sQue, NB, NS and Nfld, south along the Coastal Plain to La, Fla and Tex; West Indies; Central America (Scoggan 1978-79, Crow & Hellquist 1985).
NFLD Humber East; St. Mary's; Fortune Bay.
HABITAT Shallow water of ponds or deadwaters of rivers.
ECOREGIONS IB, VIB, VIC
STATUS Rare in Quebec.
NFLD RARITY S1
NOTES First collected by H.E. Smith at Island Pond (St. Mary's) in 1965. Populations were relocated in 1988 and 1989 (Hay *et al.* 1990). Easily overlooked aquatic species that may be undercollected.

Vahlodea atropurpurea (Wahlenb.) Fries var. **atropurpurea**
(Syn. *Deschampsia atropurpurea* (Wahlenb.) Scheele)

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	K, nMan; Ungava-Lab south to eQue, wNfld, NY and New England; G; nEurope (Scoggan 1978-79 emend.).
NFLD	St. Barbe North; St. Barbe South.
MAP	Hultén 1958, 1968; Hultén & Fries 1986; Porsild & Cody 1980; Riley 1984a; Rousseau 1974.
HABITAT	Damp alpine quartzite ledges and cliffs; snowbeds.
ECOREGIONS	VIIIC
STATUS	Rare in Manitoba, Ontario.
NFLD RARITY	S1
NOTES	Such alpine species may be undercollected in the Long Range Mountains.

Valeriana dioica L. ssp. **sylvatica** (Soland. ex Richards.) F.G. Meyer
(Syn. *Valeriana septentrionalis* Rydb.)

SOURCES	CAN, CDFN, DAO, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	cY and Great Bear L. to BC-Alta, Sask, Man, Ont, Que, nwNB, swLab and wNfld; south to Wash, Ida, Wyo (Scoggan 1978-79 emend.).
NFLD	White Bay North; Humber West; Humber East; Port au Port; St. George's.
MAP	Hultén 1958, 1968; Hultén & Fries 1986; Meyer 1951; Porsild & Cody 1980; Raup 1947.
HABITAT	Bogs, mossy woods and brooksides on limestone.
ECOREGIONS	IB, IC, ID, IVB, IVC
STATUS	Rare in Northwest Territories, New Brunswick.
NFLD RARITY	S2
NOTES	First collected by Sir Joseph Banks at Croque during his 1766 expedition to Newfoundland and Labrador.

Valeriana septentrionalis = Valeriana dioica ssp. **sylvatica**

Veronica alpina var. **australis = Veronica alpina** var. **terrae-novae**

Veronica alpina L.
var. **terrae–novae** Fern.
(Syn. *Veronica alpina* L. var. *australis* Wahlenb., sensu Boivin)

SOURCES	GH; Rouleau (unpublished maps).
RANGE	nwNfld.
NFLD	St. Barbe North (Barr'd Harbour Hill).
MAP	Hultén 1958; Hultén & Fries 1986; Meusel 1943; Meusel *et al.* 1978.
HABITAT	Cool mossy brookside.
ECOREGIONS	VIIIC
STATUS	Rare in Canada N1T1.
NFLD RARITY	SH
NOTES	Known only from the Highlands of St. John, the type locality of this endemic variety (Fernald 1939). Collected by M.L. Fernald, K.M. Wiegand, B. Long, F.A. Gilbert and N. Hotchkiss in 1925; not relocated since. It seems to be scarcely separable from *V. wormskjoldii*, and requires further taxonomic study.

Veronica alpina var. **unalaschensis = Veronica wormskjoldii**

Veronica alpina var. **wormskjoldii = Veronica wormskjoldii**

Veronica serpyllifolia L. ssp. **humifusa** (Dickson) Syme
(Syn. *Veronica tenella* All.)

SOURCES	CAN, CDFN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	Aleutian Is.-sAlas and BC-Alta-Sask, Ont, Que, NB, NS, Nfld and Lab; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South; Humber West; Port au Port; St. George's.
MAP	Hultén 1968, 1971; Hultén & Fries 1986; Meusel *et al.* 1978.
HABITAT	Shores of brooks and rivers; damps slaty cliffs; moist turfy limestone barrens.
ECOREGIONS	IB, ID, IE, IVA, VIIIA, VIIIC, IX
STATUS	Rare in Saskatchewan, Nova Scotia.
NFLD RARITY	S2

Veronica tenella = Veronica serpyllifolia ssp. humifusa

Veronica wormskjoldii Roem. & Schultes (Syn. *Veronica alpina* L. var. *unalaschensis* Cham. & Schlecht., *Veronica alpina* L. var. *wormskjoldii* (Roem. & Schultes) Hook.)

SOURCES	DAO, MT; Rouleau (unpublished maps).
RANGE	Aleutian Is., Alas, Y, Great Bear L., sK, sBaffin Is. and nmost Ungava-Lab, south in the West through BC-Alta to Cal and NMex and in the East to Que, nwNfld and the mts of Me and NH; G; (Scoggan 1978-79 emend.).
NFLD	White Bay North (near St. Anthony); St. Barbe North (Flower's Cove).
MAP	Hultén 1958; Hultén & Fries 1986; Meusel 1943; Meusel *et al.* 1978; Porsild & Cody 1980.
HABITAT	Cool mossy brooksides.
ECOREGIONS	IX
STATUS	Rare in Northwest Territories.
NFLD RARITY	S1
NOTES	Known from only two localities. Collected by D.B.O. Savile and J. Vaillancourt in 1951, and by Donly in 1953;it has not been relocated since.

Viola lanceolata L.

SOURCES	CAN, MT; Hay *et al.* 1990.
RANGE	Neb to Minn, Ont, Que, NB, NS, SPM, and Nfld; south to eTex and Fla; introd. in Wash and swBC (Scoggan 1978-79 emend.).
NFLD	Placentia West (Pipers Hole River, Sandy Harbour River).
MAP	Russell 1965 (ssp. *lanceolata*, USA).
HABITAT	Sandy flood plains of rivers.
ECOREGIONS	IIA
NFLD RARITY	S1
NOTES	Known from only two localities. First discovered by E. Rouleau and D. Rast in 1972 at Sandy Harbour River. Relocated in 1988.

Viola palustris L.

SOURCES	CAN, GH, MT; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Que, NB, wNfld, Lab; south to the mts of NH and Me; G; Iceland; Eurasia (Ballard 1985).
NFLD	White Bay North; St. Barbe North; St. Barbe South.
MAP	Ballard 1985; Hultén 1958; Hultén & Fries 1986; Meusel *et al.* 1978; Porsild & Cody 1980.
HABITAT	Snowbeds and alpine ravines.
ECOREGIONS	VIIIC, IX
STATUS	Rare in Northwest Territories (V. epipsila).
NFLD RARITY	S2
NOTES	We have followed the recent treatment of the circumboreal *Palustres* complex (Ballard, 1985) which segregates the western diploid taxon (*V. epipsila* Ledeb.) and the eastern tetraploid (*V. palustris*). Such alpine species may be undercollected in the Long Range Mountains.

Viola selkirkii Pursh ex Goldie

SOURCES	CAN, GH, MT; Rouleau (unpublished maps).
RANGE	wAleutian Is. and sAlas-Y to BC-Alta, Sask, Man, Ont, Que, NB, PEI, Lab, and wNfld; south to Minn, Wis, Mich, Pa and New England; wG, neEurope, Asia (Scoggan 1978-79).
NFLD	White Bay North; St. Barbe North; St. Barbe South; Humber West; Port au Port; St. George's.
MAP	Böcher 1954; Hultén 1968, 1971; Hultén & Fries 1986; Russell 1965 (USA).
HABITAT	Moist thickets and coniferous forests, in ravines, barrens and talus; on limestone.
ECOREGIONS	IB, IC, IVA, IX
STATUS	Rare in Yukon, Alberta, Saskatchewan, Manitoba.
NFLD RARITY	S2
NOTES	First discovered by Eames and Godfrey in 1908 in the Bay of Islands.

Viola septentrionalis Greene

SOURCES	CAN, GH, MT, NFLD; Rouleau (unpublished maps).
RANGE	sBC,?Sask, Ont, Que, NB, PEI, NS and Nfld; south to ?Wash, Neb, Iowa, Wis, Tenn and Va (Scoggan 1978-79).
NFLD	St. Barbe South; Port au Port; St. George's; Grand Falls; Gander.
MAP	Russell 1965 (USA).
HABITAT	Moist thickets along rivers and in ravines.
ECOREGIONS	IC, ID, IIA, IVA
STATUS	Rare in British Columbia.
NFLD RARITY	S2

Woodsia alpina (Bolton) S.F. Gray

SOURCES	CAN, DAO, GH, MT; Bouchard *et al.* 1986, Brown 1964, Lellinger 1985, Rouleau (unpublished maps).
RANGE	Alas-Y-Mack-K, Ellesmere Is., Baffin Is. south to BC, Great Slave L., Man, nMinn, Ont, Que, NB, NS, Lab, Nfld and Vt; G; Iceland; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South; Humber East; Green Bay.
MAP	Cody & Britton 1989; Dickson & White 1983a; Hultén 1958, 1968; Hultén & Fries 1986; Meusel *et al.* 1965; Porsild 1964; Porsild & Cody 1980.
HABITAT	Crevices of limestone cliffs
ECOREGIONS	IB, III, VIIIC
STATUS	Rare in Canada N3. Rare in Yukon, Northwest Territories, British Columbia, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia.
NFLD RARITY	S1
NOTES	Records for central Newfoundland (Cody & Britton 1989) could not be substantiated and are suspect (D. M. Britton, pers. comm.).

Woodsia glabella R. Br.

SOURCES	CAN, GH, MT, NFLD; Bouchard *et al.* 1986, Brown 1964, Lellinger 1985, Rouleau (unpublished maps).
RANGE	Alas to Banks Is., Somerset Is., Ellesmere Is., Ungava-Lab, Nfld, NB, NS, south to sBC, ecSask, cMan, nMinn, Ont, NY and New England; circumgreenlandic; Iceland; Eurasia (Scoggan 1978-79).
NFLD	St. Barbe North; St. Barbe South; Humber West; Humber East; Port au Port; St. George's; Green Bay.
MAP	Cody & Britton 1989; Couillard *et al.* 1988; Hultén 1962, 1968; Hultén & Fries 1986; Porsild 1964; Rousseau & Raymond 1955.
HABITAT	Crevices of limestone cliffs.
ECOREGIONS	IB, IC, III, IVA, VIIIC, IX
STATUS	Rare in British Columbia, Alberta, Saskatchewan, Manitoba, Nova Scotia.
NFLD RARITY	S2

Zannichellia palustris L.

SOURCES	CAN, GH, MT, NASC; Bouchard *et al.* 1986, Rouleau (unpublished maps).
RANGE	Alas, BC, Alta-Sask, Man, James Bay (Ont and Que coasts), Que,NB, PEI, NS and Nfld, south to Mexico, Tex, Mo, Tenn and Fla; SAmerica; Eurasia; Africa (Scoggan 1978-79, emend.).
NFLD	St. Barbe South; St. George's; Lewisporte.
MAP	Hultén 1962, 1968; Hultén & Fries 1986; Porsild & Cody 1980; Potter 1932; Riley & McKay 1980; Steyermark 1941.
HABITAT	Tidal pools in salt marshes.
ECOREGIONS	IB, ID, IIA
STATUS	Rare in Yukon, British Columbia.
NFLD RARITY	S1

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Appendix I / Appendice I

List of excluded species / Liste d'espèces exclues

A number of taxa have been excluded from the final list for various reasons, which are indicated by the codes **N, M, W, T, S, H** and **I**. This includes some species that have been previously reported as rare in Day (1989) and Argus & Pryer (1990), but which do not meet our final criteria of selection.

- **N**: Plants that have been attributed to the flora in the literature but for which no voucher herbarium specimen has been located. Reports of their presence are unconfirmed or unfounded.

- **M**: Plants that have been attributed to the flora but that are based on mistaken identifications.

- **W**: Plants that are too widespread, or plants that are too common in their habitat even though they may be restricted geographically.

- **T**: Taxonomically contentious or obscure taxa for which information is inadequate and further study is required.

- **S**: Taxa that have proven to be minor variants of other more widespread or common species. These variants, not warranting recognition, have been subsumed.

- **H**: Plants that, on the basis of recent study, have proven to be hybrids.

- **I**: Doubtfully native taxa.

The different sources that refer to species in the list are indicated by the following numbers: (1) Boivin 1966-67, (2) Rouleau 1978, (3) Scoggan 1978-79, (4) Argus *et al.* 1982-87, (5) Robertson 1984, (6) Day 1989, and (7) Argus & Pryer 1990.

Nous avons exclus plusieurs taxons de la liste finale pour des raisons diverses, indiquées ci-dessous par les symboles **N, M, W, T, S, H** et **I**. Sont inclues certaines espèces qui sont considérées rares dans les listes préliminaires de Day (1989) et de Argus & Pryer (1990), mais qui ne correspondent pas à nos critères finaux de sélection.

- **N**: Plantes attribuées à la flore dans la littérature mais pour lesquelles aucun spécimen-témoin n'a été retrouvé en herbier. Ces rapports sont non-confirmés ou sans fondements.

- **M**: Plantes attribuées à la flore sur la foi d'une identification erronée.

- **W**: Plantes trop répandues ou trop communes dans leur habitat, même lorsqu'elles ont une répartition relativement restreinte.

- **T**: Taxons obscurs ou controversés taxonomiquement, pour lesquels il manque de l'information ou qui requièrent des études supplémentaires.

- **S**: Taxons qui s'avèrent être des variants mineurs d'espèces répandues ou communes. Ces variants, qui ne méritent pas de statut, sont réduits en synonymie.

- **H**: Plantes qui, sur la foi d'études récentes, s'avèrent être des hybrides.

- **I**: Indigénat douteux.

Les sources à partir de laquelle la liste est établie sont indiquées par les numéros suivants: (1) Boivin 1966-67, (2) Rouleau 1978, (3) Scoggan 78-1979, (4) Argus *et al.* 1982-87, (5) Robertson 1984, (6) Day 1989 et (7) Argus & Pryer 1990.

Adiantum pedatum L. ssp. *calderi* W. Cody	**W**	6
Agrimonia striata Michx.	**W**	6
Amelanchier canadensis (L.) Medic.	**T, N**	1, 2, Jones 1946
Amelanchier intermedia Spach	**T, N**	2, 3, Cinq-Mars 1971
Amelanchier sanguinea (Pursh) DC.	**N**	1, 2, Cinq-Mars 1971
Amelanchier wiegandii Nielsen	**T**	1, Cinq-Mars 1971
Anemone richardsonii Hook.	**N**	6
Antennaria canadensis Greene	**W**	6
Antennaria confusa Fern.	**W**	6
Antennaria eucosma Fern. & Wieg.	**W**	6, 7
Antennaria neglecta Greene	**N**	2, 3, 6
Antennaria neodioica Greene	**W**	6
Antennaria rupicola Fern.	**S**	6
Aquilegia canadensis L.	**N**	1, 2, 3, 6
Arnica chionopappa Fern.	**W**	6
Aronia arbutifolia (L.) Ell. var. *arbutifolia*	**N**	6, Hardin 1973
Asplenium viride Huds.	**W**	6
Aster adscendens Lindl.	**N, M**	2,6
Aster linariifolius L.	**N, M**	2,6
Aster tradescanti L.	**N, M**	1, 2, 3, 6
Aster umbellatus Mill.	**W**	6
Athyrium filix-femina (L.) Roth ssp. *cyclosorum* (Rupr.) C. Chr.	**T**	3
Atriplex franktonii Taschereau	**N**	Bassett *et al.* 1983
Bartonia paniculata (Michx.) Muhl.	**W**	6
Botrychium campestre W. H. Wagner & Farrar	**T**	Wagner & Wagner 1990
Calopogon pulchellus (Salisb.) R. Br.	**W**	6
Cardamine parviflora L.	**N, M**	3
Carex adusta Boott	**W**	6
Carex argyrantha Tuckerm.	**N**	1, 2, 6
Carex crinita Lam. var. *crinita*	**N, M**	1, Standley 1983
Carex cumulata (Bailey) Mack.	**N**	2,5,6
Carex deweyana Schwein.	**W**	6, Damman 1964
Carex festucacea Schk.	**N**	1, 2, 6
Carex langeana Fern.	**H**	5
Carex lanuginosa Michx. var. *lanuginosa*	**N**	2, 3, 5, Damman 1964
Carex lapponica O.F. Lang.	**M**	Hultén & Fries 1986
Carex limula Fries	**H**	6
Carex lyngbyei Hornem.	**N, M**	2
Carex obtusata Liljeb.	**N**	2,6
Carex petasata Dewey	**N**	1, 2, 6
Carex praticola Rydb.	**N**	2, 3, 5
Carex rotundata Wahlenb.	**N**	2
Carex saxilittoralis A. Robertson	**T**	7
Carex straminea Willd.	**N**	1, 2, 6
Carex torta Boott ex Tuckerm.	**N**	2,6, Rouleau 1961
Carex tribuloides Wahlenb.	**N**	1, 2, 6
Cassiope tetragona (L.) D. Don	**N**	1, 2, 6
Cerastium regelii Ostenf.	**N**	1, 2
Circaea lutetiana L. ssp. *canadensis* (L.) Aschers. & Magnus	**N**	1, 2, 3, 6
Circaea quadrisulcata (Maxim.) Franch. & Savat.	see C. *lutetiana* ssp. *canadensis*	
Cochlearia groenlandica L.	**T, S**	2

Corema conradii Torr.	N	2, 3, 6, Fernald 1929
Corylus cornuta Marsh.	W	6
Crataegus pruinos (Wendl.) K. Koch	N	1, 2, 3, 6
Cystopteris tenuis (Michx.) Desv.	N, T	Lellinger 1985
Draba arabisans Michx.	W	6
Draba laurentiana Fern.	T, S	6
Draba rupestris R. Br.	W	6
Dryopteris expansa (Presl) Fraser-Jenkins & Jermy	T	Britton 1976, Carlson & Wagner 1982
Dryopteris filix-mas (L.) Schott	W	6
Dulichium arundinaceum (L.) Britt.	W	6
Epilobium hornemannii Reichenb.	W	6
Epilobium latifolium L.	W	6
Epilobium leptocarpum Hausskn.	S	
Epilobium nesophilum Fern.	W	6
Epilobium pylaieanum Fern.	S	6
Erechtites hieraciifolia (L.) Raf.	N	1, 2, 6
Erigeron hyssopifolius Michx.		
var. *villicaulis* Fern.	T, W	7
Euphrasia curta (Fries) Wettst.	T	Sell & Yeo 1970
Euphrasia rigidula Jord.	N, M	2,3
Euphrasia salisburgensis Funck		
var. *hibernica* Pugsl.	I	Sell & Yeo 1970
Galium brandegei A. Gray	S	
Gentiana nesophila Holm	W	6
Geranium bicknellii Britt.	I	
Geum aleppicum Jacq.		
var. *strictum* (Ait.) Fern.	N, M	2, 3, 6
Goodyera tesselata Lodd.	W	6
Grindelia squarrosa (Pursh) Dunal	I	6
Halenia deflexa (J.E. Sm.) Griseb. ssp. *deflexa*	T	Gillett 1963
Hedysarum alpinum L.	W	6
Heliopsis helianthoides (L.) Sweet	I	6
Hieraceum murorum L.	I	6
Hieraceum piloselloides Vill.	I	6
Hieraceum praealtum Gochnat	I	6
Hieraceum scabrum Michx.	N	2,6
Hieraceum umbellatum L.	I	6
Houstonia caerulea L.	N	2
Ilex verticillata (L.) A. Gray	W	6
Impatiens capensis Meerb.	W	6
Inula helenium L.	I	6
Isoetes riparia Engelm.	N	1, 2, 3
Juncus albescens (Lange) Fern.	W	6
Juncus bulbosus L.	W, I	7
Juncus pelocarpus E. Meyer		
var. *sabulonensis* St.John	S	1, 2
Lactuca terrae-novae Fern.	T	7
Lemna minor L.	N	3, Hellquist & Crow 1982, Porsild 1966a
Lobelia kalmii L.	W	6
Luzula pallescens (Wahlenb.) Bess.	I	6
Lychnis alpina L.	W	6
Lycopus americanus Muhl.	W	6
Matteuccia struthiopteris (L.) Todaro	W	6
Minuartia groenlandica (Retz) Ostenf.	W	Fernald 1918b

Montia fontana L. ssp. *fontana*	**W**	4
Nuphar luteum (L.) Sibth. & Sm. ssp. *pumilum* (Timm) E.O. Beal	**N, M**	1, 2, 3, 6, Beal 1956
Nuphar microphyllum (Pers.) Fern.	see *N. luteum* ssp. *pumilum*	
Orobanche uniflora L.	**W**	6
Oryzopsis asperifolia Michx.	**W**	6
Oryzopsis pungens (Torr.) Hitchc.	**N**	1, 2, 6
Oxytropis campestris (L.) DC.	**W**	6
Phytolacca americana L.	**N**	2,6
Poa alsodes A. Gray	**N**	Deichmann & Bradshaw 1984
Poa hispidula Vasey	**N, M**	2,6
Poa languida Hitchc.	**N**	2
Poa saltuensis Fern. & Wieg.	**W**	6
Polygonum achoreum Blake	**N, M**	2,6
Polygonum allocarpum Blake	**S**	6
Polygonum punctatum Ell.	**N, M**	2, Rouleau 1961
Polygonum virginianum L.	**N**	2,6
Potamogeton berchtoldii Fieber	**W**	6
Potamogeton pusillus L. var. *pusillus*	**N**	1, 2, 6
Potentilla anserina L. ssp. *egedii* (Wormskj.) Hiit.	**W**	6
Potentilla anserina L. var. *groenlandica* Tratt	**S**	1
Potentilla anserina L. var. *rolandii* Boivin	**T**	1
Potentilla bipinnatifida Dougl. ex Hook.	**N, M**	Kohli & Packer 1976
Potentilla crantzii (Crantz) G. Beck	**W**	6
Potentilla egedii Wormskj.	see *P. anserina*	
Potentilla nivea auctt., non L.	**W**	4,6
Potentilla simplex Michx.	**I**	6
Pyrola elliptica Nutt.	**W**	6
Pyrola grandiflora Radius	**N**	2, Hultén & Fries 1986, Young 1971
Ranunculus circinatus Sibth. var. *subrigidus* (W. Drew) Benson	**N**	1, 2, 3, 6, Drew 1936
Ranunculus subrigidus W. Drew	see *R. circinatus*	
Rhamnus alnifolius L'Hér.	**W**	6
Rorippa islandica (Oeder) Borbás	**N, M**	6
Rosa rubiginosa L.	**T**	6
Rubus elegantulus Blanch.	**T**	6
Rubus kennedyanus Fern.	**T**	6
Rubus pensilvanicus Poir.	**W**	6
Rubus ulterior Bailey	**T**	6
Rubus vermontanus Blanch.	**W**	6
Rumex orbiculatus A. Gray	**W**	6
Rumex pallidus Bigel.	**W**	6
Sagina nodosa (L.) Fenzl ssp. *nodosa*	**I**	Crow 1978
Sagina saginoides (L.) Karsten	**N**	1
Salicornia europaea L.	**W**	6
Salix amoena Fern.	**H**	6
Salix ancorifera Fern.	**S**	6
Salix brachycarpa Nutt.	**N**	2,6
Salix cordata Michx.	**N**	1, 2, 3, 6
Salix cryptodonta Fern.	**H**	6
Salix discolor Muhl.	**W**	6
Salix glaucophylloides Fern.	**W**	6
Salix leiolepis Fern.	**S**	6
Salix rigida Muhl.	**W**	6

Salix wiegandii Fern.	**H**	6
Sanicula marilandica L.	**W**	6
Saxifraga aizoon Jacq.	**W**	6
Saxifraga cespitosa L.	**W**	4
Saxifraga geum L.	**H, I**	2,6, Fernald 1918a, 1929
Saxifraga paniculata Mill.	see *S. aizoon*	
Scirpus acutus Muhl.	**W**	6
Scirpus cyperinus (L.) Kunth	**W**	6
Scirpus rufus (Huds.) Schrad.	**W**	6
Scutellaria lateriflora L.	**W**	6
Senecio gaspensis Greenm.	**S**	6
Solidago bartramiana Fern.	**H**	2, 6
Solidago hispida Muhl.	**W**	6
Sparganium multipedunculatum (Morong) Rydb.	**N, M**	1, 2, 3, Hébert 1973
Spergularia marina (L.) Griseb.	**N**	2,4
Stellaria crassipes Hult.	**S**	2, Porsild 1963
Stellaria edwardsii R. Br.	**S**	1
Stellaria monantha Hult.	**S**	1
Subularia aquatica L.	**W**	6
Tanacetum huronense Nutt.	**W**	6
Taraxacum ambigens Fern.	**T**	
Taraxacum longii Fern.	**T**	6
Torreyochloa pallida (Torr.) Church	**W**	6
Tovara virginiana (L.) Raf.	see *Polygonum*	
Triglochin gaspense Lieth & D. Löve	**W**	7
Trillium cernuum L.	**W**	6
Vaccinium myrtilloides Michx.	**N, M**	1, 2, 3, 6
Vaccinium ovalifolium J.E. Sm.	**W**	4, 6
Veratrum viride Ait.	**N**	6
Viola adunca J.E. Sm.	**W**	6
Viola nephrophylla Greene	**W**	6
Xyris montana H. Ries	**W**	6

Appendix II / Appendice II

Rare plants in taxonomic sequence / Plantes rares selon l'ordre taxonomique

Families are arranged according to the order of the Flora of North America project, which follows Cronquist (1981) for the Angiospermae. Genera and species are listed alphabetically under each family. Names in italics are synonyms.

Les familles sont organisées selon l'ordre adpoté pour le projet Flora of North America, qui suit Cronquist (1981) pour les Angiospermes. Les genres et les espèces figurent selon l'ordre alphabétique dans chaque famille. Les noms en italiques sont des synonymes.

Lycopodiaceae

Diphasiastrum alpinum
Diphasiastrum digitatum
Diphasium alpinum
Lycopodiella appressa
Lycopodium alpinum
Lycopodium appressum
Lycopodium complanatum var. flabelliforme
Lycopodium digitatum
Lycopodium flabelliforme
Lycopodium inundatum var. appressum
Lycopodium inundatum var. bigelovii

Isoetaceae

Isoetes acadiensis

Equisetaceae

Equisetum hyemale var. affine
Equisetum pratense

Ophioglossaceae

Botrychium lanceolatum var. angustisegmentum
Botrychium lanceolatum var. lanceolatum
Botrychium simplex

Dennstaedtiaceae

Dennstaedtia punctilobula

Thelypteridaceae

Thelypteris palustris var. pubescens
Thelypteris quelpaertensis
Dryopteris thelypteris var. pubescens
Oreopteris limbosperma
Thelypteris thelypteroides
Thelypteris limbosperma
Oreopteris quelpaertensis

Aspleniaceae

Asplenium trichomanes

Dryopteridaceae

Athyrium alpestre ssp. americanum
Athyrium distentifolium var. americanum
Cystopteris bulbifera
Cystopteris fragilis var. laurentiana
Cystopteris laurentiana
Cystopteris montana
Dryopteris marginalis
Dryopteris robertiana
Gymnocarpium dryopteris var. pumilum
Gymnocarpium robertianum
Polystichum mohrioides var. scopulinum
Polystichum scopulinum
Woodsia alpina
Woodsia glabella

Pinaceae

Pinus resinosa

Cabombaceae

Brasenia schreberi

Ranunculaceae

Anemone canadensis
Anemone multifida
Anemone riparia
Anemone virginiana var. riparia
Ranunculus lapponicus
Ranunculus affinis
Ranunculus gmelinii
Ranunculus hyperboreus
Ranunculus macounii
Ranunculus pedatifidus ssp. affinis
Ranunculus pedatifidus var. leiocarpus
Ranunculus pensylvanicus
Ranunculus recurvatus

Myricaceae

Myrica pensylvanica

Chenopodiaceae
Atriplex praecox
Suaeda americana
Suaeda calceoliformis
Suaeda depressa
Suaeda maritima
Suaeda maritima ssp. richii
Suaeda richii

Portulacaceae
Claytonia caroliniana var. caroliniana

Caryophyllaceae
Arenaria dawsonensis
Arenaria laricifolia var. marcescens
Arenaria marcescens
Arenaria stricta ssp. dawsonensis
Cerastium alpinum ssp. lanatum
Cerastium beeringianum
Cerastium beeringianum ssp. terrae-novae
Cerastium cerastioides
Cerastium terrae-novae
Minuartia dawsonensis
Minuartia marcescens
Provancheria cerastioides
Stellaria crassifolia

Polygonaceae
Fallopia cilinode
Oxyria digyna
Polygonum boreale
Polygonum cilinode
Polygonum oxyspermum ssp. raii
Polygonum raii

Plumbaginaceae
Androsace septentrionalis
Limonium carolinianum
Limonium nashii

Elatinaceae
Elatine minima

Hypericaceae
Hypericum ellipticum

Droseraceae
Drosera linearis

Cistaceae
Hudsonia ericoides

Violaceae
Viola lanceolata
Viola palustris
Viola selkirkii
Viola septentrionalis

Salicaceae
Salix anglorum
Salix arctica
Salix arctica var. kophophylla
Salix arctophila
Salix ballii
Salix herbacea
Salix jejuna
Salix myrtillifolia
Salix myrtillifolia var. brachypoda
Salix pedicellaris
Salix pedunculata
Salix serissima

Brassicaceae
Arabis drummondii
Braya americana
Braya fernaldii
Braya humilis var. abbei
Braya humilis var. humilis
Braya humilis var. laurentiana
Braya longii
Braya novae-angliae ssp. abbei
Braya purpurascens var. fernaldii
Braya purpurascens var. longii
Cardamine pratensis ssp. angustifolia
Draba allenii
Draba aurea var. aurea
Draba fladnizensis var. heterotricha
Draba glabella var. pycnosperma
Draba hirta var. pycnosperma
Draba lactea
Draba minganensis
Draba nivalis
Draba pycnosperma
Erysimum coarctatum
Erysimum inconspicuum var. coarctatum
Hutchinsia procumbens
Hymenolobus procumbens
Lesquerella arctica
Lesquerella arctica var. purshii
Lesquerella purshii

Empetraceae
Empetrum atropurpureum
Empetrum nigrum var. atropurpureum
Empetrum eamesii ssp. atropurpureum

Ericaceae
Arctostaphylos alpina ssp. rubra
Arctostaphylos rubra
Cassiope hypnoides
Chimaphila umbellata ssp. cisatlantica
Gaultheria procumbens

Primulaceae
Lysimachia thyrsiflora

Crassulaceae
Crassula aquatica
Tillaea aquatica

Saxifragaceae
Parnassia glauca
Parnassia kotzebuei
Saxifraga foliolosa
Saxifraga rivularis
Saxifraga stellaris var. comosa

Rosaceae
Alchemilla alpina
Amelanchier fernaldii
Crataegus brunetiana
Crataegus chrysocarpa
Crataegus irrasa
Crataegus macrosperma var. acutiloba
Crataegus rotundifolia
Dryas drummondii
Potentilla nivea var. pulchella
Potentilla pectinata
Potentilla pensylvanica var. litoralis
Potentilla pensylvanica var. pectinata
Potentilla pulchella
Potentilla sibbaldii
Potentilla usticapensis
Sibbaldia procumbens

Fabaceae
Astragalus alpinus var. alpinus
Astragalus alpinus var. brunetianus
Astragalus bodinii
Astragalus brunetianus
Astragalus eucosmus
Astragalus eucosmus var. terrae-novae
Astragalus labradoricus
Astragalus robbinsii var. fernaldii
Astragalus stragulus
Astralagus eucosmus var. fernaldii
Astralagus fernaldii
Hedysarum boreale ssp. mackenzii
Hedysarum mackenzii
Oxytropis deflexa var. capitata
Oxytropis deflexa var. foliolosa
Oxytropis foliolosa

Haloragaceae
Myriophyllum spicatum var. exalbescens
Myriophyllum exalbescens
Myriophyllum farwellii
Myriophyllum magdalense
Myriophyllum sibiricum
Myriophyllum verticillatum

Onagraceae
Epilobium alpinum
Epilobium alpinum var. lactiflorum
Epilobium anagallidifolium
Epilobium davuricum
Epilobium lactiflorum
Epilobium palustre var. davuricum
Epilobium saximontanum
Epilobium scalare
Epilobium steckerianum

Cornaceae
Cornus alternifolia

Loranthaceae
Arceuthobium pusillum

Polygalaceae
Polygala paucifolia

Oxalidaceae
Oxalis acetosella ssp. montana
Oxalis montana

Balsaminaceae
Impatiens pallida

Apiaceae
Angelica laurentiana
Hydrocotyle americana
Osmorhiza chilensis
Osmorhiza chilensis var. cupressimontana
Osmorhiza depauperata
Osmorhiza divaricata
Osmorhiza obtusa

Gentianaceae
Gentiana propinqua
Gentianella propinqua ssp. propinqua

Apocynaceae
Apocynum cannabinum var. hypericifolium
Apocynum sibiricum

Menyanthaceae
Nymphoides cordata

Boraginaceae
Cynoglossum boreale

Callitrichaceae
Callitriche hermaphroditica

Oleaceae
Fraxinus nigra

Scrophulariaceae
Bartsia alpina
Gratiola aurea
Gratiola lutea
Limosella aquatica
Limosella australis
Limosella subulata
Pedicularis flammea
Veronica alpina var. terrae-novae
Veronica alpina var. australis
Veronica alpina var. unalaschensis
Veronica alpina var. wormskjoldii
Veronica serpyllifolia ssp. humifusa
Veronica tenella
Veronica wormskjoldii

Lentibulariaceae
Utricularia geminiscapa
Utricularia purpurea

Rubiaceae
Galium kamtschaticum
Mitchella repens

Valerianaceae
Valeriana dioica ssp. sylvatica
Valeriana septentrionalis

Asteraceae
Antennaria albicans
Antennaria alpina var. cana
Antennaria appendiculata
Antennaria bayardii
Antennaria brunnescens
Antennaria cana
Antennaria columnaris
Antennaria foggii
Antennaria gaspensis
Antennaria howelii ssp. petaloidea
Antennaria longii
Antennaria neglecta var. gaspensis
Antennaria neodioica var. gaspensis
Antennaria petaloidea
Antennaria rosea ssp. pulvinata
Antennaria straminea
Antennaria vexillifera
Antennaria wiegandii
Arnica alpina ssp. angustifolia
Arnica alpina ssp. tomentosa
Arnica angustifolia ssp. angustifolia
Arnica angustifolia ssp. tomentosa
Arnica frigida ssp. griscomii
Arnica griscomii ssp. griscomii
Arnica louiseana ssp. griscomii
Arnica plantaginea
Arnica pulchella
Arnica terrae-novae
Arnica tomentosa
Aster acuminatus
Aster ciliolatus
Aster foliaceus var. subgeminatus
Aster lanceolatus ssp. lanceolatus
Aster simplex
Crepis nana
Erigeron acris var. elatus
Erigeron acris var. oligocephalus
Erigeron compositus
Erigeron elatus
Erigeron elatus var. oligocephalus
Gnaphalium norvegicum
Gnaphalium supinum
Hieraceum smolandicum ssp. robinsonii
Hieracium groenlandicum
Hieracium plicatum ssp. groenlandicum
Hieracium robinsonii
Omalotheca norvegica
Omalotheca supina
Prenanthes racemosa
Senecio cymbalaria
Senecio fernaldii
Senecio pauciflorus
Senecio resedifolius
Solidago sempervirens
Taraxacum latilobum
Taraxacum laurentianum
Taraxacum phymatocarpum

Alismataceae
Alisma plantago-aquatica var. americanum
Alisma triviale
Sagittaria latifolia

Potamogetonaceae
Potamogeton amplifolius
Potamogeton foliosus var. foliosus
Potamogeton friesii
Potamogeton obtusifolius
Potamogeton pectinatus
Potamogeton spirillus
Potamogeton strictifolius
Potamogeton vaginatus
Potamogeton zosteriformis
Potamogeton foliosus var. macellus
Potamogeton longiligulatus
Potamogeton zosterifolius ssp. zosteriformis

Najadaceae
Najas flexilis

Zannichelliaceae
Zannichellia palustris

Araceae
Acorus americanus
Acorus calamus
Acorus calamus var. americanus
Calla palustris

Juncaceae
Juncus dudleyi
Juncus longistylis
Juncus nodosus
Juncus subcaudatus
Juncus subcaudatus var. planisepalus
Juncus subtilis
Juncus tenuis var. dudleyi
Juncus tenuis var. uniflorus
Luzula acuminata
Luzula pilosa var. saltuensis
Luzula saltuensis

Cyperaceae
Carex abdita
Carex arcta
Carex arctogena
Carex bicolor
Carex bipartita
Carex capitata
Carex chordorrhiza
Carex concinna
Carex conoidea
Carex crawei
Carex cryptolepis
Carex flava var. fertilis
Carex franklinii var. misandroides
Carex glacialis
Carex glacialis var. terrae-novae
Carex hormathodes
Carex hostiana
Carex hostiana var. laurentiana
Carex houghtonii
Carex hystricina
Carex incurva
Carex katahdinensis
Carex lachenalii
Carex lacustris
Carex lagopina
Carex maritima
Carex maritima var. setina
Carex microglochin
Carex misandroides
Carex norvegica
Carex novae-angliae
Carex pedunculata
Carex petricosa var. misandroides
Carex pseudo-cyperus
Carex rugosperma var. tonsa
Carex silicea
Carex terrae-novae
Carex tonsa
Carex umbellata
Carex umbellata var. tonsa
Carex vahlii
Carex vulpinoidea
Cladium mariscoides
Eleocharis kamtschatica
Eleocharis nitida
Eleocharis obtusa var. ovata
Eleocharis ovata
Eleocharis pauciflora
Eleocharis pauciflora var. fernaldii
Eleocharis quinqueflora
Eleocharis savatieri
Eleocharis tenuis
Eriophorum brachyantherum var. brachyantherum
Eriophorum callitrix var. callitrix
Eriophorum gracile
Eriophorum opacum
Eriophorum scheuchzeri
Rhynchospora capillacea
Scirpus atrovirens
Scirpus atrovirens var. georgianus
Scirpus fernaldii
Scirpus kamtschaticus
Scirpus lacustris ssp. validus
Scirpus maritimus
Scirpus pallidus
Scirpus paludosus
Scirpus tabernaemontanii
Scirpus validus

Poaceae
Agrostis perennans
Calamagrostis purpurascens
Critesion brachyantherum
Danthonia intermedia
Deschampsia atropurpurea
Elymus virginicus
Festuca prolifera
Festuca altaica
Festuca brachyphylla
Festuca brachyphylla ssp. saximontana
Festuca brevifolia
Festuca ovina var. brachyphylla
Festuca ovina var. brevifolia
Festuca ovina var. saximontana
Festuca ovina var. vivipara
Festuca prolifera var. lasiolepis
Festuca rubra f. prolifera
Festuca rubra var. prolifera
Festuca saximontana
Festuca scabrella
Festuca vivipara ssp. hirsuta
Hordeum boreale
Hordeum brachyantherum
Hordeum jubatum var. boreale
Milium effusum var. cisatlanticum
Oryzopsis canadensis
Phleum alpinum
Phleum alpinum var. americanum
Phleum commutatum var. americanum
Poa arctica
Poa eminens
Poa fernaldiana
Poa laxa ssp. fernaldiana
Puccinellia ambigua
Spartina alterniflora
Spartina patens
Sphenopholis intermedia
Sphenopholis obtusata var. major
Trisetum melicoides
Vahlodea atropurpurea var. atropurpurea

Sparganiaceae
Sparganium eurycarpum
Sparganium fluctuans

Liliaceae
Allium schoenoprasum
Allium schoenoprasum var. laurentianum
Allium schoenoprasum var. sibiricum
Maianthemum racemosum ssp. racemosum
Smilacina racemosa

Orchidaceae
Amerorchis rotundifolia
Calypso bulbosa var. americana
Coeloglossum viride var. viride
Cypripedium calceolus var. planipetalum
Cypripedium parviflorum var. planipetalum
Cypripedium planipetalum
Cypripedium reginae
Goodyera oblongifolia
Habenaria albida var. straminea
Habenaria fimbriata
Habenaria hookeri
Habenaria hookeri var. abbreviata
Habenaria macrophylla
Habenaria orbiculata var. macrophylla
Habenaria psycodes var. grandiflora
Habenaria straminea
Habenaria viridis var. interjecta
Leucorchis albida ssp. straminea
Listera borealis
Malaxis brachypoda
Malaxis monophyllos var. brachypoda
Orchis rotundifolia
Platanthera albida var. straminea
Platanthera grandiflora
Platanthera hookeri
Platanthera orbiculata var. macrophylla

Distribution maps / Cartes de répartition

The following maps show the distribution of the rare vascular plants of the Island of Newfoundland. Each dot may represent more than one population.

Les cartes suivantes montrent la répartition des plantes vasculaires rares de l'île de Terre–Neuve. Chaque point peut représenter plusieurs populations.

Acorus americanus

Agrostis perennans

Alchemilla alpina

Alisma plantago-aquatica var. americanum

Allium schoenoprasum

Amelanchier fernaldii

Amerorchis rotundifolia

Androsace septentrionalis

Anemone canadensis

Anemone multifida

Anemone riparia

Angelica laurentiana

Antennaria albicans

Antennaria bayardii

Antennaria brunnescens

Antennaria cana

Antennaria columnaris

Antennaria foggii

Antennaria gaspensis

Antennaria howellii
ssp. petaloidea

Antennaria straminea

Antennaria vexillifera

Antennaria wiegandii

Apocynum cannabinum
var. hypericifolium

Arabis drummondii

Arceuthobium pusillum

Arctostaphylos rubra

Arnica angustifolia
ssp. angustifolia

Arnica angustifolia
ssp. tomentosa

Arnica griscomii
ssp. griscomii

Asplenium trichomanes

Aster acuminatus

Aster ciliolatus

Aster lanceolatus
ssp. lanceolatus

Astragalus alpinus
var. alpinus

Astragalus alpinus
var. brunetianus

Astragalus bodinii

Astragalus eucosmus

Astragalus robbinsii
var. fernaldii

Athyrium alpestre
ssp. americanum

Atriplex praecox

Bartsia alpina

Botrychium lanceolatum
var. angustisegmentum

Botrychium lanceolatum
var. lanceolatum

Botrychium simplex

Brasenia schreberi

Braya fernaldii

Braya humilis var. humilis

Braya longii

Calamagrostis purpurascens

Calla palustris

Callitriche hermaphroditica

Calypso bulbosa
var. americana

Cardamine pratensis
ssp. angustifolia

Carex abdita

Carex arcta

Carex bicolor

Carex capitata

Carex chordorrhiza

Carex concinna

Carex conoidea

Carex crawei

Carex cryptolepis

Carex glacialis

Carex hormathodes

Carex hostiana

Carex houghtonii

Carex hystricina

Carex lachenalii

Carex lacustris

Carex maritima

Carex microglochin

Carex norvegica

Carex novae-angliae

Carex pedunculata

Carex petricosa
var. misandroides

Carex pseudo-cyperus

Carex silicea

Carex tonsa

Carex vulpinoidea

Cassiope hypnoides

Cerastium alpinum
ssp. lanatum

Cerastium beeringianum

Cerastium cerastioides

Cerastium terrae-novae

Chimaphila umbellata
ssp. cisatlantica

Cladium mariscoides

Claytonia caroliniana
var. caroliniana

Coeloglossum viride
var. viride

Cornus alternifolia

Crassula aquatica

Crataegus chrysocarpa

Crataegus macrosperma
var. acutiloba

Crepis nana

Cynoglossum boreale

Cypripedium calceolus
var. planipetalum

Cypripedium reginae

Cystopteris bulbifera

Cystopteris laurentiana

Cystopteris montana

Danthonia intermedia

Dennstaedtia punctilobula

Draba aurea var. aurea

Draba glabella
var. pycnosperma

Draba lactea

Draba nivalis

Drosera linearis

Dryas drummondii

Dryopteris marginalis

Elatine minima

Eleocharis kamtschatica

Eleocharis nitida

Eleocharis ovata

Eleocharis quinqueflora

Elymus virginicus

Empetrum atropurpureum

Epilobium anagallidifolium

Epilobium davuricum

Epilobium lactiflorum

Epilobium saximontanum

Equisetum hyemale
var. affine

Equisetum pratense

Erigeron compositus

Erigeron elatus

Eriophorum brachyantherum
var. brachyantherum

Eriophorum callitrix
var. callitrix

Eriophorum gracile

Eriophorum scheuchzeri

Erysimum inconspicuum
var. coarctatum

Festuca altaica

Festuca brachyphylla

Festuca prolifera

Festuca saximontana

Festuca vivipara
ssp. hirsuta

Fraxinus nigra

Galium kamtschaticum

Gaultheria procumbens

Gentianella propinqua
ssp. propinqua

Gnaphalium norvegicum

Gnaphalium supinum

Goodyera oblongifolia

Gratiola aurea

Gymnocarpium robertianum

Hedysarum boreale ssp. mackenzii

Hieracium groenlandicum

Hieracium robinsonii

Hordeum brachyantherum

Hudsonia ericoides

Hydrocotyle americana

Hymenolobus procumbens

Hypericum ellipticum

Impatiens pallida

Isoetes acadiensis

Juncus longistylis

Juncus nodosus

Juncus subcaudatus

Juncus subtilis

Juncus tenuis var. dudleyi

Lesquerella arctica

Limonium carolinianum

Limosella aquatica

Limosella australis

Listera borealis

Luzula acuminata

Lycopodium alpinum

Lycopodium appressum

Lycopodium digitatum

Lysimachia thyrsiflora

Maianthemum racemosum
ssp. racemosum

Malaxis monophyllos
var. brachypoda

Milium effusum
var. cisatlanticum

Minuartia dawsonensis

Minuartia marcescens

Mitchella repens

Myrica pensylvanica

Myriophyllum farwellii

Myriophyllum sibiricum

Myriophyllum verticillatum

Najas flexilis

Nymphoides cordata

Oryzopsis canadensis

Osmorhiza chilensis

Osmorhiza depauperata

Oxalis montana

Oxyria digyna

Oxytropis deflexa
var. foliolosa

Parnassia glauca

Parnassia kotzebuei

Pedicularis flammea

Phleum alpinum

Pinus resinosa

Platanthera albida
var. straminea

Platanthera grandiflora

Platanthera hookeri

Platanthera orbiculata
var. macrophylla

Poa arctica

Poa eminens

Poa fernaldiana

Polygala paucifolia

Polygonum boreale

Polygonum cilinode

Polygonum rail

Polystichum scopulinum

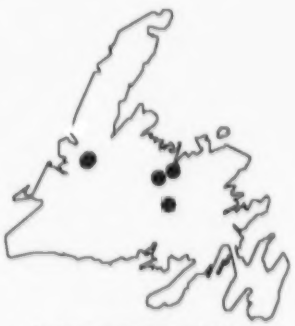
Potamogeton amplifolius

Potamogeton foliosus
var. foliosus

Potamogeton friesii

Potamogeton obtusifolius

Potamogeton pectinatus



Potamogeton spirillus

Potamogeton strictifolius

Potamogeton vaginatus

Potamogeton zosteriformis

Potentilla pensylvanica
var. litoralis

Potentilla pulchella

Prenanthes racemosa

Puccinellia ambigua

Ranunculus gmelinii

Ranunculus hyperboreus

Ranunculus lapponicus

Ranunculus macounii

Ranunculus pedatifidus ssp. affinis

Ranunculus pensylvanicus

Ranunculus recurvatus

Rhynchospora capillacea

Sagittaria latifolia

Salix arctica

Salix arctophila

Salix balii

Salix herbacea

Salix jejuna

Salix myrtillifolia

Salix pedicellaris

Salix pedunculata

Salix serissima

Saxifraga foliolosa

Saxifraga rivularis

Scirpus atrovirens

Scirpus maritimus

Scirpus validus

Senecio cymbalaria

Senecio pauciflorus

Sibbaldia procumbens

Solidago sempervirens

Sparganium eurycarpum

Sparganium fluctuans

Spartina alterniflora

Spartina patens

Sphenopholis intermedia

Stellaria crassifolia

Suaeda calceoliformis

Suaeda richii

Taraxacum latilobum

Taraxacum laurentianum

Taraxacum phymatocarpum

Thelypteris palustris
var. pubescens

Thelypteris quelpaertensis

Trisetum melicoides

Utricularia geminiscapa

Utricularia purpurea

Vahlodea atropurpurea
var. atropurpurea

Valeriana dioica
ssp. sylvatica

Veronica alpina
var. terrae-novae

Veronica serpyllifolia
ssp. humifusa

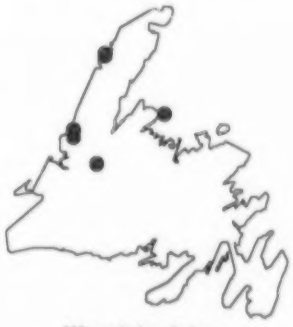
Veronica wormskjoldii

Viola lanceolata

Viola palustris

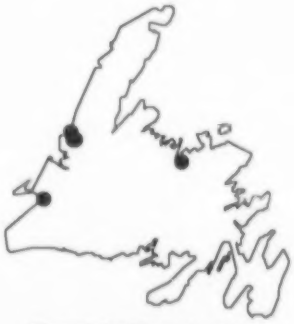
Viola selkirkii

Viola septentrionalis



Woodsia alpina

Woodsia glabella



Zannichellia palustris

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